

RETURN

(178)

TO AN ORDER OF THE HOUSE OF COMMONS, dated the 18th February, 1907, for a copy of the report respecting the selection and location of 3,500,000 acres in the Peace River District of British Columbia, which has been prepared upon the exploratory survey mentioned by the Minister of the Interior on the 7th February, in the House of Commons.

R. W. SCOTT,
Secretary of State.

OTTAWA, January 15, 1907.

To the Honourable FRANK OLIVER,
Minister of the Interior,
Ottawa.

By letter of instructions to me dated September 3, 1904, and signed by James A. Smart, Esq., then Deputy Minister, I was instructed to make an exploration of that portion of the province of British Columbia adjoining the eastern boundary thereof and in the vicinity of the Peace river with a view to the selection by the Dominion Government of the rectangular block to contain three and one-half ($3\frac{1}{2}$) million acres of land granted to the said Dominion Government by the province of British Columbia under certain arrangement between the two Governments.

The following are extracts from this letter :—

‘By an Act of the Legislature of British Columbia, being Chapter 14 of 47 Victoria, Statutes of British Columbia, 1884, Section 7, it is enacted as follows :—

“There is hereby granted to the Dominion Government three and a half million acres of land in that portion of the Peace River district of British Columbia lying east of the Rocky Mountains and adjoining the Northwest Territory of Canada, to be located by the Dominion in one rectangular block.”

‘By Chapter 6, Statutes of Canada, 1884, Section 12, it is enacted as follows :—

“Three and one-half million acres of land in that portion of the Peace River District of British Columbia lying east of the Rocky Mountains and adjoining the Northwest Territory of Canada, by the said Act assented to on the 10th day of

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December, one thousand eight hundred and eighty-three as aforesaid, entitled, 'An Act relating to the Island Railway, Graving Dock and Railway Lands of the Province,' and to be located by the said Government in one rectangular block, shall be held to be Dominion lands within the meaning of the Dominion Lands Act, 1883."

'It is now considered desirable that the necessary steps should at once be taken to have this block of land located by the Dominion Government as required by the Acts above quoted, and the Minister wishes you to undertake the work of exploration of the portion of the Province of British Columbia in the vicinity of the Peace river necessary to decide on the position and dimensions of the block.

'You should give detailed reports concerning the different districts as to

1. Soil.
2. Topographical features.
3. Timber.
4. Minerals.
5. Other resources of the district you may inspect.

'You should have a general regard to the adaptability of the district selected for settlement by agriculturalists.

'You will note the temperature, climate, animal and aquatic life and generally all facts and circumstances which may be of interest or value in connection with such an exploration.

'It is suggested that the block can be best selected in that portion of the tract referred to in the Act, which lies alongside and in the vicinity of the Peace river. Unless otherwise instructed, you will of course confine your exploration to this portion.'

I have the honour to report that in compliance with above instructions after completing the necessary preparations, I proceeded by train to Edmonton, and from there by team the balance of the journey.

Our party left Edmonton on the 16th December, 1904, and consisted of seven men, twelve pack horses and two freight teams, the latter carrying the necessary supplies for the trip and the necessary dunnage for the party.

Attached herewith are

'A.' Portion of map of the Dominion showing the locality in which the exploration was to be made and the route travelled from Edmonton.

'B.' Map showing the block recommended to be taken, with topographical features, routes travelled in exploring the country and other information.

'C.' Diary.

'D.' Table of barometric elevations above sea level taken at certain points.

'E.' Table showing temperatures as taken at certain points by J. A. Belleau, D.L.S., between May 1st and December 31st, 1905, and between January 1st and July 15th, 1906.

'F.' Record of certain observations taken at Peace River Crossing and Dunvegan.

'G.' Records obtained from Police Journals.

SOIL.

The soil of the Peace River district consists principally of a yellow clay loam carrying from 4 inches to 12 inches of a rich top soil and varying all over from the greater depth to the lesser depth mentioned. It carries finely distributed throughout its mass lime in the form of Selenite, and it is evident from the growth upon its surface that it is comparatively a rich and nutritious soil. This soil is universally distributed over the entire Peace River District.

WATER.

The distribution of water, as far as we could judge, is not sufficient for the requirements of a newer settlement.

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In many parts of the district the clay loam surface soil is from 50 feet to 150 feet in depth and in most places evidently holds water which would yield an abundant supply if wells were sunk into it, but this is only supposition, as we did not test for water on our trip.

On Pouce Coupe prairie it is well watered by many streams ; at about 100 feet in depth the banks show a gravel sub-soil from which water percolates into the various streams, almost from the beginning of such streams until they become quite deep in their channels of over 150 feet in depth below the prairie. When you penetrate to that depth you almost invariably penetrate the shale, and water procured there is so strongly alkaline as to be unfit for any use, of either man or animal.

TOPOGRAPHICAL FEATURES.

The prairie surface consists generally of a moderately rolling plain, intersected by deep ravines where they cut through it on their way to join the Peace river. This fact will render railway locations in the vicinity of the river somewhat difficult, and will necessitate such locations being at a distance of 25 or 30 miles north or south of the river, in order to avoid heavy crossings, such crossings near the river being almost impossible, the ravines being 600 to 800 feet in depth and from one to two miles in width at the surface, and having badly broken and crumbling banks.

The whole of the river banks in the district are composed of shale which is in a continuous state of change through weathering and disintegration which causes a process of denudation and constant sliding of the embankment.

TIMBER.

The principal timber we saw in the country was undersized poplar averaging about four inches in diameter and from 25 to 30 feet in height. We saw a great deal of spruce on the hill tops but it also was undersized and in the main unfit for railroad uses. There is birch and alder also to be found, but it is also undersized, the birch not averaging more than six inches in diameter and the alder four inches. The cottonwood (balm of Gilead) grows in the bottom of the Peace River valley.

These latter grow to a very large size, sometimes attaining five feet in diameter, but it is a loose shaky wood and is apparently unfit for economic uses. There is no red or white pine in the district, and although there has been some very fine spruce it has been almost without exception destroyed by fires and nothing now remains of them but extensive windfalls which act as impediments to progress through the country. There is an occasional ridge of jackpine where, as is the case in a few localities there is a greater proportion of sand mixed with clay soil.

The entire bush which grows in the country may be said generally to be undersized and scattering, thus leaving many prairie openings ; this is characteristic of the entire district. We made progress through the country by following up the old Indian trails and very seldom had any extra cutting to do, although those trails were sometimes unusually narrow and constructed by a minimum of labour on the part of the Indians. An occasional tree only required to be cut. One reason why the trails are so crooked is that the Indians never followed the cutting in a straight line, but diverted from side to side always to get the nearest and easiest tree to cut. They also diverted said trails around marshy or soft places on their way, hence an Indian trail is sometimes twice as long as a white man would make the same road.

MINERALS.

We discovered a large deposit of talc on the Middle river upon the course of our first day's travel from the Pine. We discovered also two small veins of anthracite coal near the Forks ; one vein was about 6 inches in thickness, the other vein was not well

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developed. We also discovered coal on the Kiskapiskow river on Pouce Coupe prairie but did not trace up these discoveries, there being evidences of coal everywhere in the district of Peace River on the south side, or in that portion of it from which the selection is to be made.

There is also gold in the gravel bars of the Peace River and it has formerly been secured there and panned out yielding from \$15 to \$50 a day, but the period during which gold can be taken from the bars does not exceed two months or two months and a half of each season, and up to the present the difficulties and the cost of supplies have been so great as to discourage the miner. We discovered nothing else of economic value in the way of minerals in the country.

CLIMATE.

The climate is thoroughly endurable; the summers not being too hot, nor the winters so cold as in Manitoba and Ontario. The summer nights are cool enough to enable one to sleep comfortably covered by a blanket. The winters are also endurable, not reaching the extreme low temperatures of Manitoba, nor even that of Ontario. There appears to be a liability to early frosts which liability will likely disappear through cultivation and settlement. I would not, however, advise any one to attempt to settle in the country until a railroad first penetrated and opened it up.

In the month of May the thermometer registered as the greatest degree of heat at 1.30 p.m. 78 degrees. During the month of June, 72 degrees. During the month of July, 84 degrees on one day only. During the month of August, 78 degrees on two days only. During the month of September, 70 degrees on one day only. During the month of October, 56 degrees on one day only. All of these being registered above zero, and being for the summer of 1905.

During the month of November it registered 3 below at 7 a.m. On the 29th it registered 24 below at 5 a.m., and on the 30th, 20 below at 7 a.m. On December 1st, it registered 20 below at 6.30 a.m. From December 2nd to the 6th it registered from 40 below to 4 above. From the 6th to the 8th it registered from 6 below to 6 above. From the 8th to the 19th, it registered an average of about 16 above. On the 19th it registered from 4 to 5 below. On the 20th it registered 8 degrees below. On the 21st it registered 10 degrees below. From the 21st to the 29th it averaged about 20 degrees above. On the 29th it registered 10 degrees below. On the 29th, 30th and 31st, it averaged about 5 degrees below. On January 1st, 1906, it registered 3 above. From January 1st to January 11th it averaged about 25 degrees above. On January 11th, it registered 17 degrees below. On January 12th, 16 below. From January 12th to the 25th it averaged about 30 degrees below. From January 26th until February 1st, it averaged about 30 degrees above zero. On February 4th, it registered 10 degrees below. On February 5th, 6 degrees above. From February 5th to the 10th, it averaged about 15 above. From February 13th it averaged from 10 above and 5 below and 12 below, and 15 and 27 above, alternating above and below the zero point, for the balance of the month. During the month of March the temperature alternated between 42 above as the highest registered temperature to 18 below as the lowest registered temperature. During the month of April the highest registered temperature was 72 degrees, which occurred upon one day only. During the month of May the highest registered temperature was 78 degrees, which occurred during our exploration travels on the middle branch of the Pine river. During the month of June the highest registered temperature was 72 and 75 degrees, which occurred on the plateau at Graves creek, also in the course of our travels. During the month of July the highest registered temperatures were 82 and 92 degrees, which also occurred upon the upper plateau during the course of our travels, in the year 1906.

The first winter the thickness of the ice upon the river did not exceed two feet and a half, at the utmost three feet six inches. During the year 1906 the thickness of the ice upon the Peace river was four feet generally. In some places it exceeded that thickness.

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During the course of our travels upon the plateau in the months of May and June, 1906, we were visited with frost upon several occasions during the night. The registrations of the thermometer were taken at six in the morning, the thermometer apparently not registering quite the lowest temperature which had apparently been attained through the night. On the 3rd and 4th of May, it registered thirty degrees. On the 6th of May it registered thirty degrees. On the 7th of May it registered twenty-five degrees. On the 15th of June it registered thirty-four degrees with evidence of frost upon the vegetation.

The above statement of fact applies only to that portion of the Peace River territory comprised within the land selection, and is not intended to apply to the balance of the Peace River territory comprised within the Northwest Territories. So far as we were able to judge, the balance of the Peace River district enjoys a somewhat milder climate, as is evidenced by the successful growth of cereals and vegetables therein.

I made a close comparison of temperatures between Dunvegan and Spirit river. Spirit river is south of Dunvegan about twenty-five miles, and situated upon the plateau of the prairie about 800 feet higher than Dunvegan, which is situated in the valley of the river and immediately adjacent to the river. The temperatures were reported by travellers coming into Dunvegan from Spirit river. No record was kept of these temperatures, but they showed generally a difference of about eight degrees of lower temperature at Spirit river. During the winter no record was kept of the summer temperatures or of the difference between the upper elevation of the banks and the valley below. But it is safe to assume that the difference in temperature was pretty constant both summer and winter.

RAINFALL.

During 1906, there was a fair distribution on the lower Peace river from Vermilion to Dunvegan, but the rainfall above Dunvegan was deficient and the majority of the garden stuff sown in this district was a failure in consequence.

SNOWFALL.

During the year 1905, the snowfall was quite heavy. During the month of January it measured about two feet and a half in the bush, and about two feet in depth on the open prairie. During the year 1906 the snowfall did not exceed three inches in depth either in the bush or upon the open prairie, and there was really no sleighing during the entire winter, excepting upon rivers.

RANCHING.

Hay grows finely over the entire district of Peace river and affords good pasturage wherever the open prairie exists. Much of the country is covered with an undersized growth of poplar, jackpine, birch, alder and spruce. Throughout the growth of this timber, hay also grows, and in places in sufficient quantity to afford some feed, but not in sufficient quantity to be relied upon as regular pasturage, nor to afford hay. About a four to five months' supply of hay should be provided to carry cattle safely through the winter. At the very least, four tons per head should be allowed for cattle and about three tons for horses. We carried our horses over the winter at Fort St. John upon a supply of three tons per head. Pigs are easily raised. The pigs in the country run wild during the summer and live principally on roots and by grazing. Very little attention is given them by their owners, but they would require to be fed from November until April.

AGRICULTURE—EXPERIMENTAL FARM.

On arriving at Fort St. John on May 8, 1905, I at once proceeded to plough, cultivate and plant land for an experimental farm.

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On the 17th started breaking and hauling logs for the necessary building.

Started planting potatoes May 27, sowed radishes, lettuce, turnips, carrots, parsnips, beets, peas, beans, corn, onions, pumpkin, cucumber and squash.

The turnips and potatoes grew finely, also the beans, radishes and lettuce; the corn matured and ripened; the principal portion of the beans also matured and ripened; the peas ripened but were entirely destroyed by the chipmunks which devoured them as rapidly as they matured.

The lettuce grew well and was deliciously tender; the onions also grew well; the pumpkin, cucumber and squash were not a success, although they have during occasional seasons been grown successfully upon the Hudson bay side of the river.

Oats were successfully ripened upon the Hudson bay side of the river.

Cauliflower was not a success; many of the cabbage matured, some did not do so.

The corn matured and was uninjured by the succeeding frost. Our potatoes were very good and gave sufficient yield for what we planted, about one acre, the return being between four and five hundred bushels. Upon the Hudson bay side of the river they succeeded in growing the finest potatoes I have ever seen.

They selected from the growth upon a half acre of ground about four bushels of potatoes the majority of which weighed seven pounds, actual tested weight, this weight being phenomenal weight for the vegetables mentioned.

The potatoes were sound and generally in good condition.

In case this statement might be doubted I may mention that I speak from personal observation and a personal test of the weights.

Being busily employed in doing some general work, the first fall frost caught us unprepared and destroyed some of our garden stuff, although everything in the garden was in shape to be housed and taken care of.

The corn and beans being ripe at the time were uninjured.

We also sowed a variety of flowers such as are usually contained in Ferry's seed packets. They grew wonderfully well, all coming into bloom and many of them lingering until after the third and fourth frost. Sunflowers grew vigorously and blossomed and ripened their seeds.

Watermelons grew upon the Hudson bay side of the river, but developed fruit only about one-fourth in size of that which grows in Ontario. Unnecessary to say that it did not ripen.

I might here mention that over this entire section of country, the cut worm was remarkably developed during the year 1906, and caused much destruction to garden stuffs by its ravages. Its development was not confined to any one district of the Peace river, but seemed to prevail universally.

Oats which were sown for feed upon the Hudson bay side of the river matured and were harvested about a month in advance of the frost.

There was scarcely sufficient rainfall and we were compelled to provide additional moisture for growing of plants and vegetables by carrying water up from the river.

The distribution of moisture over the country is unequal.

During 1905 there was a fair distribution of rainfall over the entire Peace river district.

Unfortunately, we did not have seeds of any of the cereal crops with us. The country is subject to summer frosts, which would appear to some extent especially on the higher plateaus in the vicinity of St. John, and from there to the mountains, to be detrimental to the universally successful growth of such crops, although oats have always ripened in the valley of the Peace river at Fort St. John where they have been grown for rough feed. Wheat has not been grown there, and its successful growth in this vicinity is not to be depended upon, although the soil is apparently well adapted to the successful growth of all cereals. Down the river, about a hundred miles below St. John such crops are successfully raised, and wheat, oats and barley yield well, although this territory also is visited by occasional summer frosts.

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Frost struck us upon the 4th of September, 1905, and affected everything growing in the garden. The potato vines were frozen to the ground. It struck us again on the 15th inst., so severely that the growing vegetables were all frozen deep in the ground, the turnips apparently being frozen 2 inches in depth, the carrots, parsnips and beets being likewise similarly frozen, also the onions and cabbage; the beans and corn being thoroughly matured were not affected. We had taken up the principal quantity of potatoes and had them secured in the cellar; about one hundred bushels which we had not removed were so thoroughly frozen in the ground that we found it impossible to remove them, so they were abandoned in place.

HAY.

About the last week of July, 1905, proceeded with the cutting and stacking of hay. This occupied us July and August, and a small portion of the month of September, during which period we put up by admeasurement about sixty tons, estimating that this would be an ample supply to feed our horses through the winter.

We fed about eighteen horses, averaging about three tons per horse for the winter's feed.

We had about four hundred pounds of hay left unfed when we went for the horses during the last week of April, 1906. The grass was well developed on the hillside. At this time the horses were feeding on the hillside of the North Pine river, where we had wintered them.

About the 2nd of September we returned to St. John, completed our building, and got everything in shape for the winter.

While the ice was making upon the river, we were busily engaged laying up firewood.

ANIMAL LIFE.

Animal life is represented principally in the country by moose, black bear and cinnamon bear, the wild cat or lynx, the coyote or ordinary prairie wolf, the black or timber wolf, the common rabbit, fox, and skunk. The moose, bear, wild cat and common rabbit are used by the Indians for food. Among the smaller animals are to be found the beaver, the mink, the marten, the common Canadian red squirrel, the chipmunk, a species of rat called the wood or bush tailed rat, and mice of a different species from the mouse found in Manitoba and the larger portion of the Northwest. The moose is becoming scarce, and has almost disappeared from the immediate vicinity of the Peace river. Indians have now to penetrate back from the river about thirty miles in order to secure food. The bear is disappearing from the immediate vicinity of the Peace river. The beaver is also becoming a very rare animal.

FISH.

In the Peace river proper, fish are somewhat scarce, an occasional trout only is caught in the river. The most common fish is called the squaw fish. It is about the size of an Ontario chub, and much like it in general appearance. It is insipid to the taste, and very bony. It is eaten by the Indians, but white men when they catch it usually throw it away.

The next most common fish is the sucker which is a soft fish and not much relished either by the white men. The next fish, which is but seldom caught, is the ling or maria, as it is most commonly called. This fish is sometimes eaten by both Indians and white men.

Upon reaching the upper tributaries of the Peace river, the water is always clear and there are abundant trout in the various streams. We caught trout from two to five pounds in weight.

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Pike and white fish exist in the lakes, and pike in the lakes and running water. There are four kinds of trout: speckled trout (bull trout), weighing up to $5\frac{1}{2}$ pounds or more; the trout called the Arctic trout, a beautifully mottled fish; the rainbow trout, a trout carrying a rainbow band longitudinally along both sides of the body; a black speckled trout, growing to about two pounds in weight; all being a well flavoured, firm edible fish.

QUOTATIONS FROM DIARY.

Reported from Dunvegan the ice moved out of the Peace river on Tuesday, April the 18th. May the 6th, grass quite green, reported 6 inches in length. May the 7th, the horses were hard to catch, being apparently loth to leave the green grass on the hillside. Evidences of growth on river bank, grass 6 inches, shrubs budding, balm of Gilead in full leaf, poplar in bloom, willows all in pollen.

Near the banks of the North Pine river.

Monday, the 8th of May, wild gooseberry bushes on the plateau in half leaf, also squawberries. Wild pea vines 6 in. long almost in blossom. Wild strawberry leaves $1\frac{1}{2}$ inches long. Between the last two days plant life has developed rapidly and evidences are that growth will be continuous from this time. Growth on southern exposures of hills of the deep valleys of the various rivers appears to be a week in advance of the northern exposures of the south banks.

In cutting road, went about 4 feet back from the face of the river bank, ground was moist to a depth of 13 inches from the surface, the prairie soil was clay loam, black to 12 inches from the surface; beneath this depth the clay soil was of a much lighter colour, and was quite dry, crumbling easily in the fingers; at a depth of 5 feet soil was so firm that it was necessary to use a pick in places. Up to that depth the spade was sufficient. The sand which was here mixed with clay is quite fine, not being more than one fourth of the size of the sand found in Ontario and Manitoba. The embankments breaking down along the river, are quickly disintegrated and carried into solution by the river, which is very muddy, increasing in density from the early spring until the period of highest water; this material in solution (mechanical solution) increasing to such an extent as finally to make the water unfit for domestic use. The approximate rate of current in centre channel at low water is about four miles an hour, increasing finally to five miles at the highest stage of water. The gravels and pebbles carried into the river through the disintegration of its banks are upheld by the strong current along the bottom, causing a continual swish or sound as they are moved along the bottom of the channel, caused by the constant friction and impact against its stony bed, and can be distinctly heard by persons on shore or in a boat.

The width of the river from a point directly below St. John is about thirteen hundred feet between the upper surfaces of its immediately inclosing banks. The elevation of the prairie surface (bottom valley) is about 20 feet above the present level of the river, which has now an elevation of about 5 feet above ice level of the river. Twenty-five years ago it was reported that the water overflowed the adjacent flats to a depth of 3 feet, which would give an elevation of between 25 feet or 30 feet above the present lowest water level. The general elevation of the inclosing banks is from 650 feet to 750 feet above the river, with a general average of channel width at the summit of upper prairie level of about two miles. The prairie surface is moderately rolling upland, generally lightly timbered with poplar and willow and with many openings entirely free from timber growth, well grassed and containing in growth many weeds, the weeds being so numerous in some places as to entirely obscure the growth of hay. We procured the hay for our horses on the eastern bank of the North Pine river; there was very little weed growth there. Many small lakes containing water made it a very convenient winter location.

Thursday, the 18th of May. Picked some blue and white violets and strawberry blossoms on the hillside this a.m. Waxberry in full leaf. Wild currants in full leaf and flower. Honeysuckle in full leaf. This season's growth of vine 7 inches to date. Hard frost last night, ice one-sixteenth inch thick in basin this morning. Saturday the

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3rd of June. This morning sowed pumpkin, cucumber, American wonder corn, and Delaware potatoes.

The water in the Peace river, July the 15th, has risen this season about 15 feet in elevation above the low water level, and is now rapidly going down, having fallen about 8 feet to date. Thursday the 6th of July. Saskatoon berries were ripe at Dunvegan. Red currants ripe here on July the 12th. July 18th, all potatoes in bloom. Commenced cutting hay on July 27th; have discovered a fine growth on the banks of the North Pine river. Estimate the amount of hay about two tons to the acre. There are many small lakes here and it is evidently a fine camp ground as well as a hay meadow. Will be able to put up horses and feed them at this point as well as procure all the hay necessary. Have brought a mower across with me, but there is so much burned and fallen timber that I find it unsuitable and will have to secure what hay is required by using scythes. We succeeded in cutting about sixty tons of hay here, and there was twice as much left in the immediate vicinity. It was of fine quality.

On our trip down the river we took note of the growing crops on our way. At Peace River Crossing they raised nearly all of the common vegetables grown in Ontario, and everything was in good shape at the time of our arrival on August 8th.

T. A. Brick, a settler and resident of Peace River Crossing, was reported to have raised 5,000 bushels of wheat, and was at that time busily employed in harvesting it. The Hudson Bay Company was building a barge to convey it from Peace River Crossing to Vermilion to grind it in the mill at that point. It was reported that Brick was to get \$2 a bushel for this wheat.

Several other settlers at Peace River Crossing had also raised wheat, and were busily employed in harvesting the same, and were in a position to sell it to the mill at Vermilion.

In proceeding on our way to Edmonton, we noticed the development at Lesser Slave lake where, also, all the common vegetables of Ontario had been grown successfully and matured, and wheat and oats also at that point. Coming on down the Slave river, we stopped at Donaldson's, a settler residing upon the banks of the river. He had grown a large patch of onions which yielded well, also about a couple of acres of potatoes, and about five acres of wheat and oats. At the time of our arrival the wheat and oats were over-ripe, and should have been cut a week before, but Donaldson explained that it was impossible for him to get assistance. The wheat was about as fine a sample as I ever saw growing, also the oats, but the indications were that most of it would be lost through remaining uncut. Coming on through to Athabaska Landing, we viewed the garden at that point owned by Gagnon, the hotel keeper, which gave indications of having been touched by frost, the pumpkin vines and some of the potato tops being wilted. This was about the 25th of August. On the way into Edmonton the indications were that the season was about two weeks in advance at the Peace river and at Lesser Slave lake. The farmers were most of them busy harvesting, a few apparently finished. The date was about the 1st of September, but as we had passed through an entirely new settlement they were somewhat later than the balance of the Edmonton district.

This report would not be complete without my bearing testimony to the thorough efficiency and general usefulness of Mr. J. A. Belleau, D.L.S., who acted as my assistant upon this trip.

As a result of my exploration and study of the country, I beg to recommend the following described tract of land as being the tract to be accepted by the Dominion Government in satisfaction of the grant to it referred to in my letter of instructions:—

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‘*DESCRIPTION.

‘All that tract of land lying in the province of British Columbia and containing three million and five hundred thousand acres, more or less, and which may be described as follows :—

‘Commencing at the point of intersection of the eastern boundary of the province of British Columbia, with the water’s edge on the north side of the Peace river at low water level of the waters of the said Peace river, thence north along the said eastern boundary of British Columbia a distance of forty-six (46) and one-half ($\frac{1}{2}$) miles to the northeast corner of the said tract of land, thence westerly at right angles with the said east boundary a distance of sixty-eight (68) miles and twenty-eight (28) chains, and seventy-five (75) links to the northwest corner of the said tract of land; thence in a southerly direction and at right angles with the last described line, a distance of eighty (80) miles to the southwest corner of said tract of land; thence in an easterly direction and at right angles with the last described line, a distance of sixty-eight (68) miles and twenty-eight (28) chains and seventy-five (75) links more or less, to the intersection of the said east boundary of the province of British Columbia; thence north along said east boundary, a distance of thirty-three and one-half ($33\frac{1}{2}$) miles more or less to the point of commencement.’

I have the honour to be, Sir,

Your obedient servant,

JNO. A. MACDONELL, C. E.

The following is the description of the block of land in the Province of British Columbia containing three million five hundred thousand acres which was finally selected by the Minister of the Interior, as shown within the green border on the plan attached to this report :—

‘All and singular that certain parcel or tract of land situate in the Province of British Columbia in the Dominion of Canada and which is bounded on the east by the boundary line between the Provinces of British Columbia and Alberta; on the north by a line drawn westerly at right angles to the said boundary line through its point of intersection by the Twenty-third base line of the Dominion Lands system of survey; on the south by a line drawn westerly at right angles to the said boundary line through its point of intersection by the Twentieth base line of the Dominion Lands system of survey; and on the west by a line parallel to the said boundary line and distant therefrom seventy-five miles thirty-eight chains and sixty-four links; the said parcel containing three million five hundred thousand acres.’

* The land above described is shown within the red border on the smaller plan attached to this report

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'C.'

DIARY.

Left Edmonton on December 16, 1904.

On the 24th we arrived at Athabaska landing.

On January 7th, 1905, reached Lesser Slave Lake. Arrived at Peace River Crossing on January 15.

On January 23 reached Dunvegan.

On January 26 sent out two teams by the river loaded with feed supplies to distribute along the river between Dunvegan and Fort St. John.

The teams failed to get through on account of depth of snow, but Geo. Dickenson who accompanied them, made his way through to St. John on foot, and on the 9th of March Dickenson returned to Dunvegan with adverse report.

I decided to proceed myself and investigate conditions; taking three dog teams with drivers and supplies.

On the 17th of March I left Dunvegan for St. John, leaving the balance of the party and the horses behind.

Upon reaching St. John I ascertained that there was no available feed for the horses and no accommodation of any kind for the balance of the party. In view of all circumstances I decided to remain at Dunvegan for the balance of the winter, so I returned to that point and completed arrangements for feed for the horses and accommodation for the men until spring.

On April 24 ensuing we left Dunvegan for Fort St. John by the trail.

We reached St. John on the 8th of May, finding it necessary to at once proceed with the building of accommodation for the men, and a little later the cutting of necessary hay to provide for the horses for the coming winter. This work in connection with an experimental farm which we also operated kept us busily employed during the summer season.

On January 17, 1906, commenced traverse of the Peace and North Pine rivers. Traversed the Peace from the boundary of British Columbia, up to the Halfway river, a distance of about 55 miles. Traversed the Pine from its junction with the Peace about 25 miles in a northwesterly direction, returned to camp at headquarters upon the 17th of February, remained in camp from that date until the first week of May ensuing, when we proceeded with an investigation of the selection for the land grant.

May 1.—Intended moving out to-day to begin exploration, but it rained part of the night and forenoon of the next day, making the hillsides of Peace river too slippery to climb. No rain in the afternoon; cloudy with southwesterly wind.

Wednesday, May 2.—Started with outfit along the trail to Moberly lake. Trail passed through a dry undulating country, with windfall and brulé, light scrub and small jackpine. Camped $\frac{1}{2}$ mile west of South Pine river.

Thursday, May 3.—Cloudy with light rain at 10.30 a.m. Started at 8 a.m. and travelled until 10 o'clock a.m. Hard frost. Ice on pail.

Friday, May 4.—Cloudy and cold. Frost last night; thirty above at 6 a.m. Travelled through old brulé, much fallen timber, snow during the night.

Saturday, May 5.—Cloudy and cold morning; light hail once in a while. Travelled fourteen miles, last eight of which were in a fine level country. Jackpine and open patches of prairies land first class. Camped at confluence of small creek.

Sunday, May 6.—Cold and cloudy with intermediate hail.

Monday, May 7.—Fine clear morning, heavy frost last night, $\frac{1}{2}$ inch of ice in pail. Camped near small lake. Caught three dozen fine pike, two or three pounds in weight; proved to be delicious eating, firm and well flavoured, and entirely free from a swampy flavour, which is frequently found in this fish in the eastern provinces.

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Thursday, May 10.—Reached the Middle Forks of South Pine river, and the junction of Middle river and South Pine river. South Pine river at this point is about 250 feet in width. The Middle river was about 300 feet in width, and apparently about eight feet deep, in the centre of the river. Both streams were flowing fine clear water.

Friday, May 11.—The Pine and Middle River running fast from 5 to 6 miles an hour. Crossed horses and started at 9.30 a.m. along right shore of Middle river. Camped on west bank.

Saturday, May 12.—Cloudy cold night, frost during night. Started at 8.40 a.m. Travelled two hours and forty minutes, through windfall and burning timber. Trail very crooked, follows the river. Camped near river $6\frac{1}{2}$ miles from start. Discovered a large deposit of talc in crossing a small brook which emptied into the Middle river. Caught a number of bull trout in river. Made cache.

Sunday, May 13.—Moved camp. Camped near right bank of river.

Monday, May 14.—Travelled about $7\frac{1}{2}$ miles up the river. Camped on the river flat about $2\frac{1}{2}$ miles below the Forks of Middle Pine river. Snow in the afternoon.

Tuesday, May 15.—Rained steadily all night, clouds are thick and dripping all day. Could not move camp.

Wednesday, May 16.—Middle branch of Pine river. Camped $1\frac{1}{2}$ miles from junction of prairie and Falls river and Middle river. Rain all night. Did not move camp to-day. Rain all day; the sun showed itself a little while during the afternoon. Killed a young doe deer (antelope) and two blue grouse.

Thursday, May 17.—Raining still slowly. Did not move camp. Killed a beaver and three blue grouse. Caught some fine trout (bull trout), four or five pounds in weight.

Saturday, May 19.—Did not move camp. Killed a moose last night, curing it by smoking to-day. Heavy showers in the afternoon.

Sunday, May 20.—Moved camp down the river about eleven miles. Rain threatening,—rained most of the night.

Monday, May 21.—Rained all night and raining still this morning. Misty and showery all day.

Tuesday, May 22.—Started at 9 a.m. Camped along tributary of middle branch of the Pine river. Travelled about nine miles.

Wednesday, May 23.—Fine morning, cold night, white frost, fine and warm during the day. Travelled from 8 a.m. to 2 p.m., following traces of old trail, up and down high hills and deep coulees, over fallen timber and muskegs. Camped at west end of Rocky Mountain lake. Travelled about 13 miles. One horse played out about one mile from camp. Path divided and followed a large creek, one of the feeders of the above lake. Camped near the shores of Rocky Mountain lake.

Thursday, May 24.—Weather raw and disagreeable. Did not move camp.

Saturday, May 26.—Did not move camp.

Sunday, May 27.—Moved camp to east end of lake in the morning. Made a raft and set a net at exit of lake. Caught a large pike $6\frac{1}{2}$ pounds in weight.

Monday, May 28.—Moved camp to small flat near river.

Tuesday, May 29.—Moved camp. Camped near the east branch of Pine river at mouth of large creek, Rocky Mountain brook, 50 to 70 feet wide, 2 to 5 feet deep. Clear water.

Wednesday, May 30.—Moved camp to about six miles down the east branch.

Thursday, May 31.—Moved camp to crossing of east end branch, distance of about 12 miles by trail. Clear water in river. Width about 300 feet, depth of water about 7 feet.

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Friday, June 1.—East branch of South Pine river. Swam horses after lunch and on large rafts being made, the whole outfit of men and horses crossed safely. River flowing about six or seven miles an hour. Water from 4 to 7 feet in depth.

Saturday, June 2.—Moved camp and camped on the left bank of Coal brook, having travelled about fourteen miles.

Sunday, June 3.—Caught a number of black speckled trout in Coal brook weighing two pounds.

Monday, June 4.—Moved camp about ten miles in a northeasterly direction. Camped early along creek, a tributary of the north branch of Coal brook.

Wednesday, June 6.—Fine cool morning. Frost during night. Moved camp to Kiskapiskow river, a distance of about 8 miles.

Thursday, June 7.—Moved camp to Dawson brook.

Friday, June 8.—Moved camp towards the east through Pouce Coupe prairie. Camped at crossing of Bear river, having travelled about ten miles. Very cloudy with heavy shower at 7 p.m. Bush fires are raging east and northeast, and northwest from here.

Saturday, June 9.—Rain in the afternoon and part of the night. Thunderstorm in the afternoon. Did not move camp.

Sunday, June 10.—Strong northwest wind. Fine weather all day.

Monday, June 11.—Moved camp towards northwest along St. John Trail. Camped near slough.

Tuesday, June 12.—Rained part of the night. Rained all forenoon and cleared up in the afternoon. Could not move camp.

Wednesday, June 13.—Fine morning, cool, with heavy dew. Moved camp. Travelled about 12 miles. Camped on creek flowing into large creek, which flows into Kiskapiskow river.

Thursday, June 14.—Cloudy and cool with westerly winds. Moved camp to left shore of Kiskapiskow. Travelled about $7\frac{1}{2}$ miles. Passed through a thick bush.

Friday, June 15.—Frost last night. Ice in pail. Moved camp towards the northwest about $8\frac{1}{2}$ miles. Camped near creek flowing into Kiskapiskow river near Divide.

Saturday, June 16.—Moved camp to crossing of South Pine river. Arrived at 1.10 p.m. and camped on right bank. Swam horses to left bank.

Monday, June 18.—Crossed outfit to left shore of South Pine river, and moved camp to headquarters. G.T.P. party pulled out as we arrived. Wm. Graham, C.E., in charge.

Tuesday, June 19.—Moved camp and travelled easterly to Graves creek, an affluent of Kiskapiskow river. Camped near White Man's trail from Pouce Coupe prairie to Pine river.

Wednesday, June 20.—Preparing to explore on north side of Peace river.

Thursday, June 21.—Made arrangements with Squity (an Indian) as guide to the north.

June 22, 23, 24 and 25.—At headquarters—Fort St. John.

Tuesday, June 26.—Moved camp to a point $11\frac{1}{2}$ miles north. Camped near small muskeg.

Wednesday, June 27.—Moved camp about $13\frac{1}{2}$ miles north to creek flowing into Pine river.

Thursday, June 28.—Did not move camp.

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Friday, June 29.—Did not move camp.

Saturday, June 30.—Moved camp.

Sunday, July 1.—Moved camp.

Monday, July 2.—Moved camp along same trail. Travelled about sixteen miles. Camped near fine creek.

Tuesday, July 3.—Started at 7.30 a.m. Travelled through swamps and camped on south bank of branch of Pine river north. Country too swampy to be of any immediate use. Requires drainage.

Wednesday, July 4.—Turned back towards St. John.

Thursday, July 5.—Moved camp towards the head of Fish lake.

Friday and Saturday, July 6 and July 7.—Kept moving camp towards Fish creek. Camped at 8 o'clock in the evening upon the banks of Fish creek.

Monday, July 9.—Moved camp westerly towards the end of Charlie lake. Camped at the end of Charlie lake after travelling about ten miles in distance.

Tuesday, July 10.—Moved camp west along Charlie lake.

Wednesday, July 11.—Moved camp and reached west end of Charlie lake.

Thursday, July 12.—Moved camp to Peace river and Cache creek, camped there. Travelled about twelve miles. Moved camp from mouth of Cache creek about ten miles west. Decided that we cannot proceed farther west on account of heavy fires burning across the trail. The whole country west of us appears to be on fire.

Friday, July 13.—On account of not being able to proceed farther west, remained in camp all day.

Saturday, July 14.—Moved camp back to mouth of Cache creek.

Sunday, July 15.—Moved camp back to Fish creek. Travelled about fourteen miles. Temperature 99 degrees at 2 p.m.

Monday, July 16.—Fine weather, very warm. Moved camp to headquarters, Fort St. John. Crossed supplies over the Peace river to headquarters in the afternoon.

Tuesday, July 17.—Northwest wind and colder. Very smoky on account of heavy bush fires. Swam horses across river to the south side. Preparing to wind up the general affairs of the party.

July 18, 19 and 20.—Packing up outfit and getting ready to leave by first boat which it is reported is August 7. We have little to do but wait, and dispose of supplies on hand.

Monday, July 30.—Wolves killed two horses and wounded a colt belonging to some Indians, upon the pasture ground attached to headquarters.

Sunday, August 5.—Afternoon the steamer *Peace River* arrives.

Tuesday, August 7.—The steamer *Peace River* crosses in the morning to our landing and takes us on board at 6.30 a.m.

Wednesday, August 8.—Arrived at Dunvegan at 12 a.m., and arrived at Peace River Crossing at 6.30 p.m., from whence we continued our journey through to Edmonton, arriving there upon September 3.

No. of Camp.		Feet above sea level.
Stations South of Peace River.		
0	On flat at headquarters, opposite Fort St. John, B.C.....	1,493
1	On plateau south of Peace river.....	2,172
4	On flat in valley near Major creek.....	2,075
5	On flat in valley near Luck lake.....	2,154
6	On flat in valley near small creek flowing in Pine river.....	1,958
7	On crossing of Pine river near mouth of middle branch.....	1,900
8	On small flat along Sukunka river (middle branch of Pine river).....	2,036
9	" "	2,075
10	" "	2,095
11	" " 2½ miles below Forks	2,124
12	Up in valley about 8 miles east of Sukunka river.....	2,530
13	Rocky Mountain lake.....	2,640
15	In valley of Rocky Mountain creek....	2,520
16	On flat on shore of east branch of Pine river	2,500
20	Coal Brook, about 15 miles above from mouth.....	2,350
21	Near head of north branch of Coal Brook, about 5 miles west of Divide.....	2,660
22	On west bank of Graves creek, about 5 miles east of Divide.....	2,670
23	On banks of Kiskapiskow river (upper crossing).....	2,590
24	Pouce Coupe Prairie, 4 miles below head of Dawson Brook ...	2,242
25	On flat above Saskatoon creek (Pouce Coupe Prairie).....	2,075
27	On flat along creek flowing into Kiskapiskow river.....	2,530
28	On Kiskapiskow river (lower crossing)	2,085
29	Near head of Dry creek.....	2,550
30	Near head of Belleau Brook.....	2,400
31	Pine River (at crossing) about 3 miles from Peace river....	1,370
Stations North of Peace River.		
2	On plateau north of Peace river.....	2,470
3	On plateau north of Peace river, head of small creek flowing into North Pine river	2,575
4	On flat 20 feet above North Pine river (upper crossing)	2,056
	End of line north	2,070
	Fish creek, where we crossed it.....	2,470
	West end of Charlie lake.....	2,500

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SCHEDULE showing Temperatures between May 1 and December 31, 1905, and January 1 and July 15, 1906.—J. A. BELLEAU, D.L.S., Observer.—Continued.

1905.	Place of Observation.	Weather.	Time.	Thermometer Readings.
May 21.	Fort St. John, B.C	Thunderstorm and rain in afternoon..	7.00 a.m....	47 above zero.
" 21.	"		1.00 p.m....	68 "
" 21.	"		7.00 p.m....	57 "
" 22.	"	Showery all afternoon and evening.	7.00 a.m....	50 "
" 22.	"		1.00 p.m....	78 "
" 22.	"		6.30 p.m....	55 "
" 23.	"		7.00 a.m....	47 "
" 23.	"		1.00 p.m....	68 "
" 23.	"		6.00 p.m....	51 "
" 24.	"		7.00 a.m....	47 "
" 24.	"		1.00 p.m....	71 "
" 24.	"		6.00 p.m....	69 "
" 25.	"	Rain from 8 a.m. to 11 p.m.	7.00 a.m....	43 "
" 25.	"	Thunderstorm at 3.30 p.m.	1.00 p.m....	61 "
" 25.	"		6.00 p.m. . .	50 "
" 26.	"		6.00 a.m....	46 "
" 26.	"		1.00 p.m. . .	66 "
" 26.	"		7.00 p.m. . .	42 "
" 27.	"	Frost during night..	6.00 a.m. . .	42 "
" 27.	"	Ice in pails.	2.00 p.m. . .	73 "
" 27.	"		7.00 p.m. . .	65 "
" 28.	"	Frost during night..	7.00 a.m....	43 "
" 28.	"	Ice in pails 5 a.m....	2.00 p.m....	74 "
" 28.	"		7.00 p.m. . .	61 "
" 29.	"	Frost during night..	6.00 a.m....	41 "
" 29.	"	Ice in pails	2.00 p.m....	78 "
" 29.	"		7.00 p.m....	61 "
" 30.	"		6.00 a.m. . .	41 "
" 30.	"		2.00 p.m....	80 "
" 30.	"		7.00 p.m....	69 "
" 31.	"		6.00 a.m....	46 "
" 31.	"		1.30 p.m....	84 "
" 31.	"		6.00 p.m....	59 "
June 1.	"		6.00 a.m....	46 "
" 1.	"		2.00 p.m. . .	78 "
" 1.	"		7.00 p.m....	58 "
" 2.	"	Electric storm at 3.30 p.m.	7.30 a.m....	55 "
" 2.	"	Hail and rain.....	1.30 p.m....	78 "
" 2.	"		6.00 p.m....	58 "
" 3.	"		6.00 a.m....	48 "
" 3.	"		1.30 p.m....	71 "
" 3.	"		7.00 p.m....	68 "
" 4.	"	Thunderstorm and rain for 1 hour at 2 p.m.	7.30 a.m....	60 "
" 4.	"		1.00 p.m....	78 "
" 4.	"		6.00 p.m....	59 "
" 5.	"	Thunderstorm with rain in afternoon..	6.00 a.m....	50 "
" 5.	"		1.00 p.m....	70 "
" 5.	"		6.00 p.m....	50 "
" 6.	"	Light showers.....	6.00 a.m....	53 "
" 6.	"	Heavy storm in forenoon and at 9.30 p.m., with rain (2 hours) afternoon...	1.00 p.m....	62 "
" 6.	"		6.00 p.m. . .	60 "
" 7.	"	Showers in forenoon and to 3. p.m.	7.00 a.m....	54 "
" 7.	"		1.00 p.m....	52 "
" 7.	"		6.00 p.m....	48 "
" 8.	"		7.00 a.m....	47 "

SCHEDULE showing Temperatures between May 1 and December 31, 1905, and January 1 and July 15, 1906.—J. A. BELLEAU, D.L.S., Observer.—Continued.

1905.	Place of Observation.	Weather.	Time.	Thermometer Readings.
				°
June 8.	Fort St. John, B.C		1.00 p.m....	74 above zero.
" 8.	"		7.00 p.m. . .	58 "
" 9.	"		6.00 a.m....	58 "
" 9.	"		1.00 p.m....	78 "
" 9.	"		6.00 p.m....	58 "
" 10.	"		7.00 a.m....	54 "
" 10.	"		1.30 p.m....	74 "
" 10.	"		7.00 p.m....	60 "
" 11.	"		7.00 a.m....	59 "
" 11.	"	Light showers in forenoon.....	1.00 p.m. . .	62 "
" 11.	"		7.00 p.m. . .	53 "
" 12.	"		6.00 a.m....	49 "
" 12.	"		1.00 p.m. . .	63 "
" 12.	"		6.00 p.m....	58 "
" 13.	"		6.00 a.m. . .	41 "
" 13.	"		1.00 p.m....	62 "
" 13.	"		6.00 p.m....	50 "
" 14.	"		6.00 a.m. . .	36 "
" 14.	"		1.00 p.m....	55 "
" 14.	"		6.00 p.m....	50 "
" 15.	"		6.00 a.m....	48 "
" 15.	"		1.00 p.m....	72 "
" 15.	"		6.00 p.m....	59 "
" 16.	"		6.00 a.m....	48 "
" 16.	"		1.00 p.m....	70 "
" 16.	"		6.00 p.m. . .	58 "
" 17.	"	Cold night but no signs of frost; 31° at 3.30 a.m..	6.00 a.m....	43 "
" 17.	"		1.30 p.m.. .	77 "
" 17.	"		7.00 p.m....	59 "
" 18.	"	Thunderstorm at noon and in afternoon.....	7.00 a.m....	60 "
" 18.	"		1.00 p.m....	55 "
" 18.	"		6.00 p.m....	52 "
" 19.	"	Rain part of the night.	6.00 a.m....	52 "
" 19.	"		1.00 p.m....	68 "
" 19.	"		6.00 p.m....	62 "
" 20.	"	Showers during evening.....	6.00 a.m....	46 "
" 20.	"		1.00 p.m....	72 "
" 20.	"		6.00 p.m....	60 "
" 21.	"	Light showers at 10 a.m.	6.00 a.m....	56 "
" 21.	"		1.00 p.m....	70 "
" 21.	"		6.30 p.m....	60 "
" 22.	"	Cold night; 30° at 3 a.m.; rain at 7 a.m.	6.00 a.m.. .	42 "
" 22.	"		1.30 p.m. . .	62 "
" 22.	"		7.00 p.m. . .	50 "
" 23.	"	Cold night.....	6.30 a.m....	40 "
" 23.	"		1.00 p.m....	62 "
" 23.	"		6.00 p.m....	55 "
" 24.	"	Showery during night and part of day...	6.00 a.m.. .	44 "
" 24.	"		1.00 p.m....	46 "
" 24.	"		6.00 p.m....	42 "
" 25.	"		6.00 a.m....	48 "
" 25.	"		1.30 p.m.. .	65 "
" 25.	"		6.00 p.m....	58 "
" 26.	"	Cold night, but no frost; 32° above at 3 a.m.....	6.00 a.m. . .	48 "
" 26.	"		1.00 p.m....	65 "

SESSIONAL PAPER No. 178

SCHEDULE showing Temperatures between May 1 and December 31, 1905; and January 1 and July 15, 1906.—J. A. BELLEAU, D.L.S., Observer.—Continued.

1905.	Place of Observation.	Weather.	Time.	Thermometer Readings.
June 26.	Fort St. John, B.C.		6.30 p.m.	62 above zero.
" 27.	Mouth of North Pine river on Peace river.		6.00 a.m.	55 "
" 27.	Mouth of Bear river on Peace river.		1.00 p.m.	75 "
" 27.	" "		7.00 p.m.	62 "
" 28.	" "		7.00 a.m.	55 "
" 28.	" "		7.00 p.m.	65 "
" 29.	On Peace river 1 mile west of Bear river.		7.00 a.m.	56 "
" 29.	" "		1.00 p.m.	70 "
" 29.	" "		6.00 p.m.	62 "
" 30.	" "		6.00 a.m.	42 "
" 30.	" "		1.00 p.m.	74 "
" 30.	" "		6.00 p.m.	66 "
July 1.	Boundary of B.C.		7.00 a.m.	54 "
" 1.	" "		1.00 p.m.	84 "
" 1.	" "		6.00 p.m.	65 "
" 2.	" "		7.00 a.m.	62 "
" 2.	" "		1.00 p.m.	74 "
" 2.	" "		7.00 p.m.	64 "
" 3.	" "		6.00 a.m.	54 "
" 3.	Mouth of Moose river.		6.00 p.m.	66 "
" 4.	" "	Light showers in forenoon.	8.00 a.m.	58 "
" 4.	" near Kiskapiskow river.		1.00 p.m.	55 "
" 4.	" "		6.00 p.m.	56 "
" 5.	On Peace river near Kiskapiskow river.	Light showers in forenoon.		
" 6.	" near S. Pine river.		6.00 a.m.	52 "
" 7.	" "		6.00 a.m.	55 "
" 7.	Fort St. John, B.C.		1.00 p.m.	78 "
" 7.	" "		6.00 p.m.	60 "
" 8.	" "		6.00 a.m.	52 "
" 8.	" "		1.00 p.m.	70 "
" 8.	" "		6.00 p.m.	48 "
" 9.	" "	Showery all day.	7.00 a.m.	46 "
" 9.	" "		1.00 p.m.	62 "
" 9.	" "		6.00 p.m.	50 "
" 10.	" "		6.00 a.m.	50 "
" 10.	" "		1.00 p.m.	65 "
" 10.	" "		6.00 p.m.	60 "
" 11.	" "	Light showers in afternoon.	6.00 a.m.	46 "
" 11.	" "		1.00 p.m.	71 "
" 11.	" "		6.00 p.m.	60 "
" 12.	" "		6.00 a.m.	50 "
" 12.	" "		1.00 p.m.	72 "
" 12.	" "		6.00 p.m.	64 "
" 13.	" "		6.00 a.m.	50 "
" 13.	" "		1.00 p.m.	70 "
" 13.	" "		6.00 p.m.	60 "
" 14.	" "		6.00 a.m.	56 "
" 14.	" "		1.00 p.m.	70 "
" 14.	" "		6.30 p.m.	60 "
" 15.	" "		6.00 a.m.	54 "
" 15.	" "		1.00 p.m.	74 "
" 15.	" "		6.00 p.m.	50 "
" 16.	" "		7.00 a.m.	50 "
" 16.	" "		1.00 p.m.	72 "
" 16.	" "		6.00 p.m.	62 "
" 17.	" "	Heavy showers in forenoon.	6.00 a.m.	55 "
" 17.	" "		2.00 p.m.	65 "
" 17.	" "		6.00 p.m.	60 "
" 18.	" "		6.00 a.m.	56 "
" 18.	" "		2.00 p.m.	75 "
" 18.	" "		6.00 p.m.	62 "
" 19.	" "		6.00 a.m.	54 "

6-7 EDWARD VII., A. 1907

SCHEDULE showing Temperatures between May 1 and December 31, 1905 ; and January 1 and July 15, 1906.—J. A. BELLEAU, D.L.S., Observer.—Continued.

1905.	Place of Observation.	Weather.	Time.	Thermometer Readings.
July 19.	Fort St. John, B.C.		2.00 p.m.	79 above zero.
" 19.	"		7.00 p.m.	66 "
" 20.	"		6.00 a.m.	62 "
" 20.	"		2.00 p.m.	81 "
" 20.	"		6.00 p.m.	72 "
" 21.	"		6.00 a.m.	62 "
" 21.	"		2.00 p.m.	76 "
" 21.	"		6.00 p.m.	58 "
" 22.	"	Thunder storm with high wind	6.00 a.m.	60 "
" 22.	"		2.00 p.m.	84 "
" 22.	"	No rain here	6.00 p.m.	55 "
" 23.	"	Rain from 12.30 to 2 p.m.	6.00 a.m.	55 "
" 23.	"		2.00 p.m.	60 "
" 23.	"	Heavy rain during night	6.00 p.m.	52 "
" 24.	On plateau 2 miles N. of St. John.	Heavy rain with thunder in the afternoon	6.00 a.m.	50 "
" 24.	"		1.00 p.m.	62 "
" 24.	"		6.00 p.m.	58 "
" 25.	"		6.30 a.m.	52 "
" 25.	Fish Creek	Thunder in the E. at 3.00 p.m. but no rain	1.00 p.m.	65 "
" 25.	Banks of N. Pine river		6.00 p.m.	50 "
" 26.	"	Heavy rain with thunder at 3.00 p.m.	6.00 a.m.	52 "
" 26.	Top of Plateau, 2 miles from N. Pine river.		1.00 p.m.	80 "
" 26.	"		6.00 p.m.	64 "
" 27.	"		6.00 a.m.	55 "
" 27.	"		1.00 p.m.	82 "
" 27.	"		6.00 p.m.	62 "
" 28.	Top of Plateau, Hay camp 2 miles from N. Pine River.		6.00 a.m.	58 "
" 28.	"		1.00 p.m.	74 "
" 28.	"	Rain at 9.30 p.m.	6.00 p.m.	48 "
" 29.	"		6.00 a.m.	45 "
" 29.	"		1.00 p.m.	58 "
" 29.	"		6.00 p.m.	50 "
" 30.	"		7.00 a.m.	55 "
" 30.	"		1.00 p.m.	64 "
" 30.	"		6.00 p.m.	52 "
" 31.	"	Rain all night	6.00 a.m.	52 "
" 31.	"		1.00 p.m.	65 "
" 31.	"	Thunderstorm in the afternoon	6.00 p.m.	52 "
Aug. 1	"		6.00 a.m.	46 "
" 1.	"		2.00 p.m.	75 "
" 1.	"		6.00 p.m.	66 "
" 2.	"		6.00 a.m.	59 "
" 2.	"		2.00 p.m.	73 "
" 2.	"		6.00 p.m.	70 "
" 3.	"		6.00 a.m.	52 "
" 3.	"		2.00 p.m.	78 "
" 3.	"		6.00 p.m.	64 "
" 4.	"		6.00 a.m.	56 "
" 4.	"		2.00 p.m.	78 "
" 4.	"		6.30 p.m.	59 "
" 5.	"	Light showers at 5.00 a.m.	6.00 a.m.	58 "
" 5.	"		2.00 p.m.	78 "
" 5.	"		6.00 p.m.	56 "
" 6.	"	Electric storm at 8.30 p.m., lasting one hour	7.00 a.m.	60 "

SCHEDULE showing Temperatures between May 1 and December 31, 1905, and January 1 and July 15, 1906.—J. A. BELLEAU, D.L.S., Observer.—Continued..

1905.	Place of Observation.				Weather.	Time.	Thermometer Readings.
Aug. 24.	Hay Camp, Top of Plateau (2 miles from N. Pine River).....					2.00 p.m....	56 above zero.
" 24.	"	"	"	"		6.00 p.m....	51 "
" 25.	"	"	"	"		6.00 a.m....	40 "
" 25.	"	"	"	"		2.00 p.m....	66 "
" 25.	"	"	"	"		6.00 p.m....	58 "
" 26.	"	"	"	"		6.00 a.m....	41 "
" 26.	"	"	"	"		2.00 p.m....	60 "
" 26.	"	"	"	"		6.00 p.m....	54 "
" 27.	"	"	"	"		6.00 a.m....	48 "
" 27.	"	"	"	"		1.00 p.m....	63 "
" 27.	"	"	"	"		6.00 p.m....	56 "
" 28.	"	"	"	"		6.00 a.m....	36 "
" 28.	"	"	"	"		2.00 p.m....	46 "
" 28.	"	"	"	"		6.00 p.m....	42 "
" 29.	"	"	"	"	Rainy part of the night and showery the whole afternoon.....	6.00 a.m....	40 "
" 29.	"	"	"	"		1.00 p.m....	48 "
" 29.	"	"	"	"		6.00 p.m....	46 "
" 30.	"	"	"	"		6.00 a.m....	46 "
" 30.	"	"	"	"		2.00 p.m....	52 "
" 30.	"	"	"	"		6.00 p.m....	46 "
" 31.	"	"	"	"	Light rain during night; showers in afternoon.....	6.00 a.m....	43 "
" 31.	"	"	"	"		2.00 p.m....	67 "
" 31.	"	"	"	"		6.00 p.m....	60 "
Sept. 1.	"	"	"	"		6.00 a.m....	48 "
" 1.	"	"	"	"		2.00 p.m....	73 "
" 1.	"	"	"	"		6.00 p.m....	64 "
" 2.	"	"	"	"		6.30 a.m....	46 "
" 2.	"	"	"	"		1.00 p.m....	72 "
" 2.	"	"	"	"		6.00 p.m....	62 "
" 3.	"	"	"	"		6.00 a.m....	35 "
" 3.	"	"	"	"		2.00 p.m....	66 "
" 3.	"	"	"	"		6.00 p.m....	56 "
" 4.	"	"	"	"	White frost.....	6.00 a.m....	30 "
" 4.	Mouth of Fish creek.....				Showers at 5.30 p.m.	2.00 p.m....	55 "
" 5.	Peace River at Fort St. John, B.C.....					1.00 p.m....	50 "
" 5.	"	"	"	"		6.00 p.m....	46 "
" 6.	St. John, B.C., Headquarters....				Light showers during night.....	6.00 a.m....	38 "
" 6.	"	"	"	"		2.00 p.m....	60 "
" 6.	"	"	"	"		6.00 p.m....	50 "
" 7.	"	"	"	"		6.00 a.m....	32 "
" 7.	"	"	"	"		2.00 p.m....	61 "
" 7.	"	"	"	"	White frost, ice on pails.....	6.00 p.m....	44 "
" 8.	"	"	"	"	White frost, $\frac{1}{16}$ in. ice on pails.....	6.00 a.m....	32 "
" 8.	"	"	"	"		2.00 p.m....	64 "
" 8.	"	"	"	"		6.00 p.m....	46 "
" 9.	"	"	"	"	White frost, $\frac{1}{16}$ in. ice on pails.....	6.00 a.m....	31 "
" 9.	"	"	"	"		2.00 p.m....	60 "
" 9.	"	"	"	"		6.00 p.m....	52 "
" 10.	Fort St. John, B.C., Headquarters..					6.00 a.m....	42 "
" 10.	"	"	"	"		2.00 p.m....	60 "
" 10.	"	"	"	"		6.00 p.m....	50 "
" 11.	"	"	"	"		6.00 a.m....	35 "
" 11.	"	"	"	"		2.00 p.m....	58 "
" 11.	"	"	"	"		6.00 p.m....	44 "
" 12.	"	"	"	"		6.00 a.m....	34 "
" 12.	"	"	"	"		2.00 p.m....	68 "
" 12.	"	"	"	"		6.00 p.m....	46 "
" 13.	"	"	"	"	Heavy white frost...	6.00 a.m....	25 "

SESSIONAL PAPER No. 178

SCHEDULE showing Temperatures between May 1 and December 31, 1905, and January 1 and July 15, 1906.—J. A. BELLEAU, D.L.S., Observer.—*Continued.*

1905.	Place of Observation.	Weather.	Time.	Thermometer Readings.
Sept. 13.	Fort St. John, B.C., Headquarters		2.00 p.m.	70 above zero.
" 13.	"		6.00 p.m.	45 "
" 14.	"	Rain for 2 hours early morning	6.00 a.m.	43 "
" 14.	"		2.00 p.m.	62 "
" 14.	"		6.00 p.m.	46 "
" 15.	"	Heavy frost early morning; ice $\frac{1}{2}$ in. on pails.	6.00 a.m.	22 "
" 15.	"		2.00 p.m.	60 "
" 15.	"		6.00 p.m.	45 "
" 16.	"	Frost during night, ice formed on pails.	6.00 a.m.	33 "
" 16.	"		2.00 p.m.	64 "
" 16.	"		6.00 p.m.	50 "
" 17.	"		6.00 a.m.	35 "
" 17.	"		2.00 p.m.	63 "
" 17.	"		6.00 p.m.	46 "
" 18.	"	Light showers at early morning.	6.00 a.m.	43 "
" 18.	"		2.00 p.m.	66 "
" 18.	"		6.00 p.m.	56 "
" 19.	"		6.00 a.m.	36 "
" 19.	"		2.00 p.m.	62 "
" 19.	"		6.00 p.m.	50 "
" 20.	"		6.00 a.m.	45 "
" 20.	"		2.00 p.m.	58 "
" 20.	"		6.00 p.m.	42 "
" 21.	"		6.00 a.m.	45 "
" 21.	"		2.00 p.m.	57 "
" 21.	"		6.00 p.m.	53 "
" 22.	"	Light rain all day.	6.00 a.m.	40 "
" 22.	"		1.00 a.m.	46 "
" 22.	"		6.00 p.m.	40 "
" 23.	"	Heavy white frost during night, ice on pails $\frac{1}{16}$ in.	6.00 a.m.	25 "
" 23.	"		2.00 p.m.	52 "
" 23.	"		6.00 p.m.	44 "
" 24.	"	White frost early morning.	7.00 a.m.	28 "
" 24.	"		1.00 p.m.	48 "
" 24.	"		6.00 p.m.	40 "
" 25.	"	Foggy and cool but no frost could be observed.	6.00 a.m.	28 "
" 25.	"		2.00 p.m.	56 "
" 25.	"		6.00 p.m.	46 "
" 26.	"	Heavy frost in early morning. Rain from 8 a.m. till 12 a.m.	6.00 a.m.	26 "
" 26.	"		2.00 p.m.	55 "
" 26.	"		6.00 p.m.	40 "
" 27.	"	White frost in the morning.	6.00 a.m.	25 "
" 27.	"		2.00 p.m.	56 "
" 27.	"		6.00 p.m.	39 "
" 28.	"	Rain all night till 8 a.m.	6.00 a.m.	36 "
" 28.	"		2.00 p.m.	54 "
" 28.	"		6.00 p.m.	36 "
" 29.	"	White frost, ice on pails	6.00 a.m.	25 "
" 29.	"		2.00 p.m.	55 "
" 29.	"		6.00 p.m.	40 "
" 30.	"	Showers during night	6.00 a.m.	41 "
" 30.	"		11.00 p.m.	52 "

6-7 EDWARD VII., A. 1907

SCHEDULE showing Temperatures between May 1 and December 31, 1905, and January 1 and July 15, 1906.—J. A. BELLEAU, D.L.S., Observer.—*Continued.*

1905.	Place of Observation.		Weather.	Time.	Thermometer Readings.	
Sept. 30.	Fort St. John, B.C., Headquarters.....			6.00 p.m....	40 above zero.	
Oct. 1.	"	"	White frost early morning.....	6.00 a.m....	25	"
" 1.	"	"		2.00 p.m....	52	"
" 1.	"	"		6.00 p.m....	35	"
" 2.	"	"		6.00 a.m....	20	"
" 2.	"	"	White frost during night.....	2.00 p.m....	55	"
" 2.	"	"		6.00 p.m....	36	"
" 3.	"	"	Rain all night.....	6.00 a.m....	36	"
" 3.	"	"		2.00 p.m....	56	"
" 3.	"	"		6.00 p.m....	43	"
" 4.	"	"	White frost during night.....	6.00 a.m....	28	"
" 4.	"	"		2.00 p.m....	58	"
" 4.	"	"		6.00 p.m....	38	"
" 5.	"	"	White frost during night.....	6.00 a.m....	27	"
" 5.	"	"		2.00 p.m....	52	"
" 5.	"	"		6.00 p.m....	42	"
" 6.	"	"	Rain from 8.30 last night to 1 a.m....	6.00 a.m....	33	"
" 6.	"	"		2.00 p.m....	45	"
" 6.	"	"		6.00 p.m....	38	"
" 7.	"	"	Light showers at 8 a.m....	6.00 a.m....	36	"
" 7.	"	"		2.00 p.m....	48	"
" 7.	"	"		6.00 p.m....	36	"
" 8.	"	"	Heavy white frost during night.....	6.00 a.m....	22	"
" 8.	"	"		2.00 p.m....	40	"
" 8.	"	"		6.00 p.m....	30	"
" 9.	"	"	Light frost during night.....	6.00 a.m....	30	"
" 9.	"	"		2.00 p.m....	48	"
" 9.	"	"		6.00 p.m....	43	"
" 10.	"	"		6.00 a.m....	36	"
" 10.	"	"		2.00 p.m....	58	"
" 10.	"	"		6.00 p.m....	50	"
" 11.	"	"		6.00 a.m....	32	"
" 11.	"	"		2.00 p.m....	56	"
" 11.	"	"		6.00 p.m....	42	"
" 12.	"	"		6.00 a.m....	34	"
" 12.	"	"		2.00 p.m....	52	"
" 12.	"	"		6.00 p.m....	40	"
" 12.	"	"		8.00 p.m....	30	"
" 13.	"	"	Heavy frost last night.....	6.00 a.m....	16	"
" 13.	"	"		2.00 p.m....	50	"
" 13.	"	"		6.00 p.m....	32	"
" 14.	"	"	Heavy frost last night.....	6.00 a.m....	28	"
" 14.	"	"		2.00 p.m....	48	"
" 14.	"	"		6.00 p.m....	42	"
" 15.	"	"	No frost during night. Light snow during evening. Light fall of snow during night.....	6.00 a.m....	33	"
" 15.	"	"		2.00 p.m....	45	"
" 15.	"	"		6.00 p.m....	25	"
" 16.	"	"		6.00 a.m....	28	"
" 16.	"	"		8.00 a.m....	22	"
" 16.	"	"		2.00 p.m....	20	"
" 16.	"	"		3.00 p.m....	18	"
" 16.	"	"		6.00 p.m....	22	"

SESSIONAL PAPER No. 178

SCHEDULE showing Temperatures between May 1 and December 31, 1905 ; and January 1 and July 15, 1906.—J. A. BELLEAU, D.L.S., Observer.—*Continued.*

1905.	Place of Observation.	Weather.	Time.	Thermometer Readings.
Oct. 17.	Fort St. John, B.C., Headquarters.....	Heavy frost during night. Swam 20 horses across the Peace. Temp. of water 34	6.00 a.m.	6 " above zero.
" 17.	"	"	2.00 p.m.	22 "
" 17.	"	"	5.00 p.m.	8 "
" 17.	"	"	6.00 p.m.	10 "
" 18.	"	Ice forming on Peace river. Frost 3 in. deep.....	6.00 a.m.	0 "
" 18.	"	"	2.00 p.m.	25 "
" 18.	"	"	6.00 p.m.	22 "
" 19.	"	Ice 2½ in. thick on pond near St. John Island. Chinook wind since 10 a.m..	6.00 a.m.	18 "
" 19.	"	"	2.00 p.m.	46 "
" 19.	"	"	6.00 p.m.	38 "
" 20.	"	Light frost early morning.....	6.00 a.m.	32 "
" 20.	"	"	2.00 p.m.	48 "
" 20.	"	"	6.00 p.m.	34 "
" 21.	"	Light frost.....	6.30 a.m.	30 "
" 21.	"	"	2.00 p.m.	49 "
" 21.	"	"	6.00 p.m.	35 "
" 22.	"	Heavy frost during night....	6.30 a.m.	22 "
" 22.	"	"	2.00 p.m.	48 "
" 22.	"	"	6.00 p.m.	32 "
" 23.	"	Light rain in afternoon..	6.30 a.m.	30 "
" 23.	"	"	2.00 p.m.	40 "
" 23.	"	"	6.00 p.m.	35 "
" 24.	"	Snow from 11 a.m. to 6 p.m. Depth, 2 inches.	6.30 a.m.	26 "
" 24.	"	"	2.00 p.m.	25 "
" 24.	"	"	6.00 p.m.	22 "
" 25.	"	Heavy frost last night.....	6.30 a.m.	5 "
" 25.	"	"	2.00 p.m.	30 "
" 25.	"	Temperature of Peace river 32°.....	6.00 p.m.	10 "
" 26.	"	Ice floating down the Peace river. Sleet at 8 p.m.	6.30 a.m.	10 "
" 26.	"	"	2.00 p.m.	26 "
" 26.	"	"	6.00 p.m.	22 "
" 27.	"	"	6.30 a.m.	15 "
" 27.	"	"	2.00 p.m.	26 "
" 27.	"	"	6.00 p.m.	22 "
" 28.	"	"	6.30 a.m.	15 "
" 28.	"	"	2.00 p.m.	25 "
" 28.	"	"	6.00 p.m.	12 "
" 29.	"	Large chunks of ice floating down the Peace river.....	6.30 a.m.	4 "
" 29.	"	"	2.00 p.m.	23 "
" 29.	"	"	6.00 p.m.	20 "
" 30.	"	"	6.30 a.m.	28 "
" 30.	"	"	2.00 p.m.	38 "
" 30.	"	"	6.00 p.m.	24 "
" 31.	"	"	6.30 a.m.	15 "
" 31.	"	"	2.00 p.m.	43 "
" 31.	"	Snow all disappeared.	6.00 p.m.	38 "
Nov. 1.	"	No frost last night..	6.30 a.m.	40 "

6-7 EDWARD VII., A. 1907

SCHEDULE showing Temperatures between May 1 and December 31, 1905 ; and January 1 and July 15, 1906.—J. A. BELLEAU, D.L.S., Observer.—Continued.

1905.	Place of Observation.	Weather.	Time.	Thermometer Readings.
Nov. 1.	Fort St. John, B.C., Headquarters.....	Chinook wind all day	2.00 p.m. . . .	47 above zero.
" 1.	"	"	6.00 p.m.....	42 "
" 2.	"	White frost last night. Ice on bay opposite H. B. Co'y is all melted.	6.30 a.m. . . .	18 "
" 2.	"	Light rain for one hour at 10 a.m....	2.00 p.m. . . .	35 "
" 2.	"	"	6.00 p.m.....	35 "
" 3.	"	Light frost last night. Light shower at 7 p.m..	6.30 a.m. . . .	35 "
" 3.	"	"	2.00 p.m. . . .	43 "
" 3.	"	"	6.00 p.m.....	34 "
" 4.	"	Light frost during night.....	6.30 a.m.....	22 "
" 4.	"	"	2.00 p.m.....	46 "
" 4.	"	"	6.00 p.m.. . . .	42 "
" 5.	"	Chinook wind all afternoon and all night.....	6.00 a.m.....	42 "
" 5.	"	"	2.00 p.m.....	46 "
" 5.	"	"	5.30 p.m.....	42 "
" 6.	"	"	6.30 a.m.....	47 "
" 6.	"	"	2.00 p.m.....	52 "
" 6.	"	"	6.00 p.m. . . .	45 "
" 7.	"	"	6.30 a.m.....	48 "
" 7.	"	"	2.00 p.m.....	55 "
" 7.	"	"	6.00 p.m.....	45 "
" 8.	"	Light frost during night. No ice floating on the Peace river.....	6.30 a.m. . . .	25 "
" 8.	"	"	2.00 p.m.....	56 "
" 8.	"	"	6.00 p.m.....	35 "
" 9.	"	White frost last night.	6.30 a.m. . . .	26 "
" 9.	"	"	2.00 p.m. . . .	42 "
" 9.	"	"	6.00 p.m.....	26 "
" 10.	"	White frost.....	6.30 a.m.....	22 "
" 10.	"	"	2.00 p.m.....	37 "
" 10.	"	"	6.00 p.m. . . .	32 "
" 11.	"	Rain all afternoon...	6.30 a.m.....	32 "
" 11.	"	"	2.00 p.m. . . .	42 "
" 11.	"	"	6.00 p.m.....	38 "
" 12.	"	Frost last night... .	6.30 a.m. . . .	42 "
" 12.	"	"	2.00 p.m.....	48 "
" 12.	"	"	6.00 p.m.....	38 "
" 13.	"	"	6.30 a.m.....	33 "
" 13.	"	"	2.00 p.m. . . .	44 "
" 13.	"	"	6.00 p.m. . . .	40 "
" 14.	"	Strong Chinook wind all afternoon....	6.30 a.m.....	42 "
" 14.	"	"	1.00 p.m.....	50 "
" 14.	"	"	6.00 p.m.....	40 "
" 15.	"	"	6.00 a.m. . . .	42 "
" 15.	"	No frost last night ..	2.00 p.m. . . .	48 "
" 15.	"	River rises 14 in. in 24 hrs.....	6.00 p.m. . . .	40 "
" 16.	"	Light white frost this morning.. . . .	6.00 a.m. . . .	25 "
" 16.	"	"	2.00 p.m.....	42 "
" 16.	"	"	6.30 p.m.....	25 "
" 17.	"	"	6.30 a.m. . . .	23 "
" 17.	"	"	1.00 p.m.....	34 "
" 17.	"	"	6.00 p.m.....	30 "

SESSIONAL PAPER No. 178

SCHEDULE showing Temperatures between May 1 and December 31, 1905, and January 1 and July 15, 1906.—J. A. BELLEAU, D.L.S., Observer.—*Continued.*

1905.	Place of Observation.	Weather.	Time.	Thermometer Readings.
Nov. 18.	Fort St. John, B.C., Headquarters.....	Hard frost last night	6.30 a.m.	25 above zero.
" 18.	" "	" "	1.00 p.m.	38 "
" 18.	" "	Light rain early morning.....	5.00 p.m.	25 "
" 19.	" "	Heavy frost last night	7.00 a.m.	22 "
" 19.	" "	" "	1.00 p.m.	35 "
" 19.	" "	" "	6.00 p.m.	22 "
" 20.	" "	Heavy frost last night; ice forming again along shore.	7.30 a.m. ..	15 "
" 20.	" "	" "	1.30 p.m.	28 "
" 20.	" "	" "	6.00 p.m.	20 "
" 21.	" "	" "	6.30 a.m.	42 "
" 21.	" "	" "	1.30 p.m.	46 "
" 21.	" "	" "	6.00 p.m.	40 "
" 22.	" "	" "	7.00 a.m.	30 "
" 22.	" "	" "	1.00 p.m.	34 "
" 22.	" "	" "	6.00 p.m.	20 "
" 23.	" "	Heavy frost last night	6.00 a.m.	8 "
" 23.	" "	Ice begins to run....	1.30 p.m.	28 "
" 23.	" "	" "	5.00 p.m.	20 "
" 24.	" "	Black frost last night	6.30 a.m.	30 "
" 24.	" "	" "	1.00 p.m.	34 "
" 24.	" "	" "	5.00 p.m.	26 "
" 25.	" "	Light snowfall in the afternoon	6.30 a.m.	25 "
" 25.	" "	" "	1.00 p.m.	30 "
" 25.	" "	" "	5.00 p.m.	25 "
" 26.	" "	" "	7.00 a.m.	3 below zero
" 26.	" "	Large chunks of ice passing here ...	1.00 p.m.	0 "
" 26.	" "	" "	6.00 p.m.	5 "
" 27.	" "	" "	7.00 a.m.	6 "
" 27.	" "	River runs full of ice; light snow at 6 p.m.	1.00 p.m.	3 "
" 27.	" "	" "	5.00 p.m.	5 "
" 28.	" "	Ice jammed below island this morning; (jam extends 2 miles down and 1 mile above) occasional snow blizzards	7.00 a.m.	6 "
" 28.	" "	" "	1.00 p.m.	3 above zero.
" 28.	" "	" "	6.00 p.m.	7 below zero.
" 29.	" "	River frozen across here and men cross over with sleighs..	5.00 a.m.	24 "
" 29.	" "	" "	7.00 a.m.	20 "
" 29.	" "	" "	1.00 p.m.	0 "
" 29.	" "	" "	5.00 p.m.	15 below zero.
" 29.	" "	" "	7.00 p.m.	20 "
" 30.	" "	" "	7.00 a.m.	20 "
" 30.	" "	" "	1.00 p.m.	0 "
" 30.	" "	" "	5.00 p.m.	0 "
Dec. 1.	" "	" "	6.30 a.m.	20 below zero
" 1.	" "	" "	1.00 p.m.	12 "
" 1.	" "	" "	5.00 p.m.	3 above zero.
" 2.	" "	Chinook wind starts in Pine Pass.....	7.00 a.m.	4 "
" 2.	" "	" "	1.00 p.m.	12 "
" 2.	" "	" "	5.00 p.m.	20 "
" 2.	" "	" "	7.00 p.m.	25 "
" 3.	" "	Chinook wind reaches here	7.30 a.m.	26 "
" 3.	" "	" "	1.00 p.m.	42 "
" 3.	" "	" "	5.00 p.m.	32 "

SESSIONAL PAPER No. 178

SCHEDULE showing Temperatures between May 1 and December 31, 1905 ; and January 1 and July 15, 1906.—J. A. BELLEAU, D.L.S., Observer.—Continued.

1905.	Place of Observation.	Weather.	Time.	Thermometer Readings.
Dec. 23.	Fort St. John, B.C., Headquarters.		7.00 a.m....	3 above zero.
" 23.	"		1.00 p.m....	15 "
" 23.	"	Weather is getting very mild. River rises; crossing on ice dangerous.....	6.00 p.m....	22 "
" 24.	"		7.00 a.m....	25 "
" 24.	"		1.00 p.m....	30 "
" 24.	"		5.00 p.m....	38 "
" 25.	"		7.00 a.m....	34 "
" 25.	"		1.00 p.m....	38 "
" 25.	"		5.00 p.m....	30 "
" 26.	"		7.00 a.m....	28 "
" 26.	"		1.00 p.m....	36 "
" 26.	"		5.00 p.m....	20 "
" 27.	"		7.30 a.m....	6 "
" 27.	"		1.00 p.m....	16 "
" 27.	"		5.00 p.m....	12 "
" 28.	"	N. E. wind & blizzards in the afternoon; ½ in. snow fell	7.00 a.m....	16 "
" 28.	"		1.00 p.m....	12 "
" 28.	"		5.00 p.m....	4 "
" 29.	"		7.00 a.m....	10 below zero.
" 29.	"		1.00 p.m....	5 "
" 29.	"		5.00 p.m....	4 "
" 30.	"		7.00 a.m....	5 "
" 30.	"		1.00 p.m....	4 "
" 30.	"		6.00 p.m....	5 "
" 31.	"		7.30 a.m....	5 "
" 31.	"		1.00 p.m....	3 "
" 31.	"		5.00 p.m....	5 "
1906.				
Jan. 1.	"		7.00 a.m....	3 above zero.
" 1.	"		1.00 p.m....	32 "
" 1.	"		5.00 p.m....	20 "
" 2.	"	Strong N.E. wind begins at 5 p.m....	7.00 a.m....	15 "
" 2.	"		1.00 p.m....	34 "
" 2.	"		5.00 p.m....	29 "
" 3.	"	Strong westerly wind all day; weather gets very mild.....	7.00 a.m....	30 "
" 3.	"		1.00 p.m....	40 "
" 3.	"		6.00 p.m....	28 "
" 4.	"		7.30 a.m....	35 "
" 4.	"		1.00 p.m....	30 "
" 4.	"		6.00 p.m....	24 "
" 5.	"		7.00 a.m....	6 "
" 5.	"		1.00 p.m....	14 "
" 5.	"		6.00 p.m....	10 "
" 6.	"		7.00 a.m....	0 "
" 6.	"		1.00 p.m....	10 "
" 6.	"		5.00 p.m....	5 "
" 7.	"	No snow on hills yet	7.00 a.m....	8 "
" 7.	"		1.00 p.m....	18 "
" 7.	"		5.00 p.m....	15 "
" 8.	"		7.00 a.m....	30 "
" 8.	"		1.00 p.m....	38 "
" 8.	"		5.00 p.m....	30 "
" 9.	"		7.00 a.m....	25 "
" 9.	"		1.00 p.m....	28 "
" 9.	"		5.00 p.m....	20 "
" 10.	"	Tremblay and Keith arrive at 3 p.m. with mail.....	7.00 a.m....	3 "

SCHEDULE showing Temperatures between May 1 and December 31, 1905, and January 1 and July 15, 1906.—J. A. BELLEAU, D.L.S., Observer.—Continued.

1906.	Place of Observation.	Weather.	Time.	Thermoneter Readings.
Jan. 10.	Fort St. John, B.C., Headquarters		9.00 a.m.	0
" 10.	"		1.00 p.m.	5 above zero.
" 10.	"		5.00 p.m.	0
" 11.	"		7.00 a.m.	17 below zero.
" 11.	"		1.00 p.m.	17 above zero.
" 11.	"		4.00 p.m.	10
" 11.	"		6.00 p.m.	0
" 12.	"		7.00 a.m.	16 below zero.
" 12.	"	Westward wind with light snow in the afternoon.	1.00 p.m.	5
" 12.	"		5.00 p.m.	12
" 13.	"		7.00 a.m.	21
" 13.	"	Light snow all afternoon.	1.00 p.m.	18
" 13.	"		5.00 p.m.	10
" 14.	"	Light snow all day.	7.00 a.m.	16
" 14.	"		1.00 p.m.	19
" 14.	"	Two in. snow since last night.	5.00 p.m.	18
" 15.	"	Three in. snow on ground.	7.00 a.m.	36
" 15.	"		1.00 p.m.	20
" 15.	"		6.00 p.m.	37
" 16.	"		7.00 a.m.	29
" 16.	"		1.00 p.m.	16
" 16.	"		6.00 p.m.	15
" 17.	"	Begin traverse of Peace river		
" 17.	"	Light snow during night.	7.00 a.m.	6
" 17.	"		1.00 p.m.	5
" 17.	"	going down	5.00 p.m.	8
" 18.	"		7.00 a.m.	10
" 18.	"	Snow during evening.	1.00 p.m.	12
" 18.	"		5.00 p.m.	16
" 19.	"	Stormy all night and all day.	7.00 a.m.	28
" 19.	"		1.00 p.m.	26
" 19.	"		5.00 p.m.	32
" 20.	"		7.00 a.m.	42 below zero.
" 20.	"		1.00 p.m.	32
" 20.	"		5.00 p.m.	38
" 21.	"		7.00 a.m.	32
" 21.	"		1.00 p.m.	20
" 21.	"		6.00 p.m.	42
" 22.	"	Light snow at 5 p.m.	7.00 a.m.	48
" 22.	"		1.00 p.m.	33
" 22.	"		6.00 p.m.	32
" 23.	"	Light snow since early morning; 3 in. snow fell to-day.	7.00 a.m.	28
" 23.	"		1.00 p.m.	21
" 23.	"	Snow 12 in. deep in bush.	5.00 p.m.	23
" 24.	On Peace river 8 miles below St. John.		7.00 a.m.	20
" 24.	"	con-		
" 24.	tinue to traverse river.		1.00 p.m.	15
" 24.	On Peace river 8 miles below St. John.		5.00 p.m.	23
" 25.	"	Near		
" 25.	N. Pine river.		7.00 a.m.	15
" 25.	"		5 00 p.m.	10
" 26.	"	Turning very mild, east wind.	7.00 a.m.	25 above zero
" 26.	"		1.00 p.m.	30
" 26.	"	Heard chinook wind roaring in the Pine Pass, and chinook all afternoon.	6.00 p.m.	28

SESSIONAL PAPER No. 178

SCHEDULE showing Temperatures between May 1 and December 31, 1905, and January 1 and July 15, 1906.—J. A. BELLEAU, D.L.S., Observer.—*Continued.*

1906.	Place of Observation.	Weather.	Time.	Thermometer Readings.
Jan. 27.	N. Pine river.....		8.00 a.m....	25 above zero.
" 27.	"		1.00 p.m....	40 "
" 27.	"		6.00 p.m....	42 "
" 28.	On Peace river, North Pine river.....		8.00 a.m....	40 "
" 28.	"	Chinook wind all night and all day; snow melts.	1.00 p.m....	45 "
" 28.	"		6.00 p.m....	30 "
" 29.	On North Pine river, 13 miles from mouth.....		8.00 a.m....	15 "
" 29.	"	Light frost last night.	1.00 p.m....	28 "
" 29.	"		5 00 p.m....	25 "
" 30.	"	Chinook wind all day. Snow is nearly all melted on the river; river flooded.		
" 31.	" 3 miles below Fisher.....		2.00 p.m....	40 "
" 31.	"		6.00 p.m....	35 "
Feb. 1.	"		7.00 a.m....	36 "
" 1.	"		2.00 p.m....	40 "
" 1.	"		5.00 p.m....	32 "
" 2.	"	Light frost last night.	7.00 a.m....	25 "
" 2.	"		1.00 p.m....	35 "
" 2.	"		5.00 p.m....	15 "
" 3.	"	Heavy frosts during night.....	7.30 a.m....	0
" 3.	"		1.00 p.m....	25 "
" 3.	"		6.00 p.m....	15 "
" 4.	"	There is over 1 ft. of water in some places on ice	7.00 a.m....	10 below zero.
" 4.	"		1.00 p.m....	0
" 4.	"		5.00 p.m....	15 above zero.
" 5.	"		8.00 a.m....	6 "
" 5.	" mouth of Pine river.....		4.00 p.m....	15 "
" 6.	On Peace river		7.00 a.m....	8 "
" 6.	" 5 miles below Pine river..		1.00 p.m....	32 "
" 6.	"		5.00 p.m....	25 "
" 7.	" 12 miles below Pine River		7.00 a.m....	18 "
" 7.	"	Clear ice all along...	2.00 p.m....	25 "
" 7.	"		5.00 p.m....	15 "
" 8.	"		7.00 a.m....	9 "
" 8.	"		2.00 p.m....	15 "
" 8.	"		5.00 p.m....	10 "
" 9.	" 2 miles above Pine river..		7.30 a.m....	8 "
" 9.	Fort St. John, B.C., Headquarters.....		5.00 p.m....	26 "
" 10.	"	Light snow in forenoon, 1 in. snow fell	7.00 a.m....	16 "
" 10.	"	Clear ice to Moberly river	5.00 p.m....	15 "
" 11.	"	3 in. snow on Peace river from there to Halfway river	7.00 a.m....	6 below zero.
" 11.	On Peace river, near Moberly river.		1.00 p.m....	12 above zero.
" 11.	"		5.00 p.m....	0
" 12.	Fort St. John, B.C., Headquarters.		7.00 a.m....	8 below zero.
" 12.	On Peace river, 3 miles above Moberly river.		1.00 p.m....	10 above zero.
" 12.	" Dog Island.....		5.00 p.m....	0
" 13.	"		7.00 a.m....	0
" 13.	"		1.30 p.m....	10 "
" 13.	" Cache creek.....		5.00 p.m....	5 "
" 14.	"		7.00 a.m....	2 below zero.
" 14.	"		2.00 p.m....	5 above zero.
" 14.	"		5.00 p.m....	0
" 15.	"	Strong east wind. Snow in forenoon. ..	7.00 a.m....	5 below zero.
" 15.	"		2.00 p.m....	0

6-7 EDWARD VII., A. 1907

SCHEDULE showing Temperatures between May 1 and December 31, 1905, and January 1 and July 15, 1906.—J. A. BELLEAU, D.L.S., Observer.—*Continued.*

1906.	Place of Observation.	Weather.	Time.	Thermometer Readings.
Feb. 15.	On Peace river, Cache creek.....		5.00 p.m....	10 below zero.
" 16.	" " ".....	East wind. Light snow in forenoon.	7.00 a.m....	15 "
" 16.	Fort St. John, B.C., Headquarters.....		2.00 p.m....	0
" 16.	" " ".....	3 in. snow fell.....	5.00 p.m....	10 above zero.
" 17.	" " ".....	East wind. Snow in the afternoon.....	7.00 a.m....	10 "
" 17.	" " ".....		2.00 p.m....	15 "
" 17.	" " ".....		5.00 p.m....	12 "
" 18.	" " ".....		7.00 a.m....	8 "
" 18.	" " ".....		2.00 p.m....	12 "
" 18.	" " ".....		5.00 p.m....	10 "
" 19.	" " ".....		7.00 a.m....	8 "
" 19.	" " ".....		1.00 p.m....	20 "
" 19.	" " ".....		5.00 p.m....	0
" 20.	" " ".....		7.00 a.m....	3 below zero.
" 20.	" " ".....		1.00 p.m....	25 above zero.
" 20.	" " ".....		5.00 p.m....	18 "
" 21.	" " ".....	West wind.....	7.00 a.m....	15 "
" 21.	" " ".....	Snow melts in the sun.....	1.00 p.m....	33 "
" 21.	" " ".....		5.00 p.m....	26 "
" 22.	" " ".....		7.00 a.m....	7 "
" 22.	" " ".....		1.00 p.m....	15 "
" 22.	" " ".....		5.00 p.m....	12 "
" 23.	" " ".....		7.00 a.m....	12 below zero.
" 23.	" " ".....		1.00 p.m....	12 above zero.
" 23.	" " ".....		5.00 p.m....	0
" 24.	" " ".....	Light snow in the afternoon.....	7.00 a.m....	0
" 24.	" " ".....		1.00 p.m....	15 "
" 24.	" " ".....		5.00 p.m....	8 "
" 25.	" " ".....		7.00 a.m....	2 "
" 25.	" " ".....		1.00 p.m....	27 "
" 25.	" " ".....		5.00 p.m....	15 "
" 26.	" " ".....	N. W. wind and stormy in the evening. 2 in. snow...	7.00 a.m....	10 below zero.
" 26.	" " ".....		1.00 p.m....	18 above zero.
" 26.	" " ".....		5.00 p.m....	5 "
" 27.	" " ".....	Light snow in the forenoon..	7.00 a.m....	5 "
" 27.	On Peace river, 2 miles above Pine river....		2.00 p.m....	10 "
" 27.	" " ".....	6 in. snow on river..	5.00 p.m....	0
" 28.	" " 25 miles down St. John....	Snow all forenoon. 2 in. snow fell.....		
Mar. 3.	Fort St. John, B.C., Headquarters.....		6.00 p.m....	25 "
" 4.	" " ".....	S W. wind.....	7.00 a.m....	3 "
" 4.	" " ".....	Chinook wind. . .	1.00 p.m....	42 "
" 4.	" " ".....	Snow melts.....	6.00 p.m....	30 "
" 5.	" " ".....	Chinook wind in the afternoon.....	7.00 a.m....	12 "
" 5.	" " ".....		1.00 p.m....	40 "
" 5.	" " ".....		6.00 p.m....	42 "
" 6.	" " ".....	West wind.....	7.00 a.m....	42 "
" 6.	" " ".....	Very mild during night.....	1.00 p.m....	52 "
" 6.	" " ".....		6.00 p.m....	46 "
" 7.	" " ".....	Chinook wind.....	7.00 a.m....	32 "
" 7.	" " ".....	Snow is all gone on river.....	1.00 p.m....	48 "
" 7.	" " ".....		5.00 p.m....	38 "
" 8.	Fort St. John, B.C., Headquarters.....	Frost during night..	7.00 a.m....	16 above zero.
" 8.	" " ".....		1.00 p.m....	38 "
" 8.	" " ".....		6.00 p.m....	35 "
" 9.	" " ".....	Frost last night.....	7.00 a.m....	22 "
" 9.	" " ".....	Hazy in the morning.	1.00 p.m....	35 "

SESSIONAL PAPER No. 178

SCHEDULE showing Temperatures between May 1 and December 31, 1905; and January 1 and July 15, 1906.—J. A. BELLEAU, D.L.S., Observer.—*Continued.*

1906.	Place of Observation.	Weather.	Time.	Thermometer Readings.
Mar. 9.	Fort St. John, B.C., Headquarters.		6.00 p.m....	32 above zero.
" 10.	"		7.00 a.m....	5 "
" 10.	"		1.00 p.m....	15 "
" 10.	"		6.00 p.m....	5 "
" 10.	"	Cold night.....	7.00 a.m....	15 below zero.
" 11.	"		1.00 p.m....	18 above zero.
" 11.	"		6.00 p.m....	5 "
" 11.	"	Clear sky, very cold during night.....	7.00 a.m....	20 below zero.
" 12.	"		1.00 p.m....	22 above zero.
" 12.	"	Milder at noon.....	6.00 p.m....	15 "
" 12.	"	No snow on hills, only a few inches in bush.	7.00 a.m....	18 below zero.
" 13.	"		1.00 p.m....	20 above zero.
" 13.	"		6.00 p.m....	5 "
" 13.	"		7.00 a.m....	10 below zero.
" 14.	"		1.00 p.m....	22 above zero.
" 14.	"		6.00 p.m....	15 "
" 14.	"	Cloudy and smoky all day; west wind...	7.00 a.m....	12 "
" 15.	"		1.00 p.m....	42 "
" 15.	"		6.00 p.m....	32 "
" 15.	"	Light frost last night; light flurries during afternoon; light snow during night.	7.00 a.m....	23 "
" 16.	"		1.00 p.m....	32 "
" 16.	"		6.00 p.m....	15 "
" 16.	"	Cloudy all day...	7.00 a.m....	12 "
" 17.	"	Strong N. E. wind..	1.00 p.m....	16 "
" 17.	"	Getting colder. N.W. wind.....	6.00 p.m....	5 "
" 17.	"	Clear sunrise.....	7.00 a.m....	12 below zero.
" 18.	"	Heavy frost last night	1.00 p.m....	15 above zero.
" 18.	"		6.00 p.m....	8 "
" 18.	"		7.00 a.m....	5 below zero.
" 19.	"		1.00 p.m....	40 above zero.
" 19.	"		6.00 p.m....	30 "
" 19.	"		7.00 a.m....	25 "
" 20.	"		1.00 p.m....	42 "
" 20.	"		6.00 p.m....	32 "
" 20.	"	East wind.....	7.00 a.m....	22 "
" 21.	"	Hazy in the forenoon.	1.00 p.m....	42 "
" 21.	"		6.00 p.m....	25 "
" 21.	"	Light frost last night.	7.00 a.m....	22 "
" 22.	"		1.00 p.m....	44 "
" 22.	"	Fine and warm at noon.....	6.00 p.m....	28 "
" 22.	"	Hazy in the forenoon.	7.00 a.m....	24 "
" 23.	"	East wind....	1.00 p.m....	40 "
" 23.	"		6.00 p.m....	35 "
" 23.	"	Cloudy with light snow.....	7.00 a.m....	32 "
" 24.	"	East wind most of the day.....	1.00 p.m....	35 "
" 24.	"		6.00 p.m....	30 "
" 24.	"	Fine and clear; getting much warmer.	7.00 a.m....	35 "
" 25.	"		1.00 p.m....	45 "
" 25.	"		6.00 p.m....	34 "
" 25.	"	Frost during night..	7.00 a.m....	22 "
" 26.	"		1.00 p.m....	45 "
" 26.	"	Clear all day.....	6.00 p.m....	30 "
" 26.	"	Frost last night.....	7.00 a.m....	20 "
" 27.	"	Chinook in the afternoon.....	1.30 p.m....	60 "

SCHEDULE showing Temperatures between May 1 and December 31, 1905, and January 1 and July 15, 1906.—J. A. BELLEAU, D.L.S., Observer.—Continued.

1906.	Place of Observation.	Weather.	Time.	Thermometer Readings.
				°
Mar. 27.	Fort St. John, B.C., Headquarters.		6.00 p.m....	35 above zero.
" 28.	"	Very much warmer..	7.00 a.m....	25 "
" 28.	"		1.00 p.m....	55 "
" 28.	"	Strong S. W. wind..	6.00 p.m....	40 "
" 29.	"	Light frost last night.	7.00 a.m....	25 "
" 29.	"		1.00 p.m....	50 "
" 29.	"		6.00 p.m....	42 "
" 30.	"		7.00 a.m....	40 "
" 30.	"	No frost last night..	1.00 p.m....	68 "
" 30.	"		6.00 p.m....	45 "
" 31.	"	No frost last night ; light shower in the afternoon.....	7.00 a.m....	38 "
" 31.	"		1.00 p.m....	62 "
" 31.	"		6.00 p.m....	42 "
April 1.	"	No frost last night..	7.00 a.m....	35 "
" 1.	"	New grass one inch long on flat.....	1.00 p.m....	48 "
" 1.	"		6.00 p.m....	35 "
" 2.	"	Frost during night..	7.00 a.m....	20 "
" 2.	"		1.00 p.m....	45 "
" 2.	"	Strong west wind, crossing is not safe; ice on river breaks.	6.00 p.m....	40 "
" 3.	"		7.00 a.m....	44 "
" 3.	"		1.30 p.m....	65 "
" 3.	"		6.00 p.m....	45 "
" 4.	"	No frost last night ; rain during evening	7.00 a.m....	42 "
" 4.	"		1.00 p.m....	55 "
" 4.	"	Channel opens at 5.30 p.m.....	6.00 p.m....	45 "
" 5.	"		7.00 a.m....	44 "
" 5.	"	Green grass 3 inches long on flat.....	1.00 p.m....	60 "
" 5.	"		6.00 p.m....	48 "
" 6.	"	White frost during night.....	7.00 a.m....	32 "
" 6.	"		1.00 p.m....	56 "
" 6.	"		6.00 p.m....	40 "
" 7.	"	White frost last night	7.00 a.m....	25 "
" 7.	"		1.00 p.m....	55 "
" 7.	"		6.00 p.m....	42 "
" 8.	"	Ice runs down in channels in small chunks.....	7.00 a.m....	25 "
" 8.	"		1.00 p.m....	52 "
" 8.	"		6.00 p.m....	44 "
" 9.	"	No frost last night..	7.00 a.m....	42 "
" 9.	"		1.00 p.m....	55 "
" 9.	"		6.00 p.m....	42 "
" 10.	"	Light shower and hail in the afternoon. .	7.00 a.m....	32 "
" 10.	"	Light frost last night	1.00 p.m....	46 "
" 10.	"		6.00 p.m....	40 "
" 11.	"	Heavy frost last night	6.00 a.m....	15 "
" 11.	"		1.00 p.m....	46 "
" 11.	"		6.00 p.m....	40 "
" 12.	"	Heavy frost last night	6.00 a.m....	20 "
" 12.	"		1.00 p.m....	52 "
" 12.	"	River all opened ; crossed river with canoe.....	6.00 p.m....	38 "
" 13.	"		6.00 a.m....	32 "
" 13.	"	Large pieces of ice floating down.....	1.00 p.m....	55 "
" 13.	"		6.00 p.m....	40 "

SESSIONAL PAPER No. 178

SCHEDULE showing Temperatures between May 1 and December 31, 1905, and January 1 and July 15, 1906.—J. A. BELLEAU, D.L.S., Observer.—*Continued.*

1906.	Place of Observation.	Weather.	Time.	Thermometer Readings.
				°
Apr. 14.	Fort St. John, B.C., Headquarters....	Chinook wind all day; warm day.....	6.00 a.m.....	44 above zero.
" 14.	"	"	1.00 p.m.....	63 "
" 14.	"	"	6.00 p.m.....	45 "
" 15.	"	No frost last night ..	7.00 a.m.....	42 "
" 15.	"	"	1.00 p.m.....	55 "
" 15.	"	Ice jammed at island below here.....	6.00 p.m.	40 "
" 16.	"	"	6.00 a.m.....	30 "
" 16.	"	"	1.00 p.m.....	64 "
" 16.	"	"	6.00 p.m.....	45 "
" 17.	"	Black frost last night	6.00 a.m.....	30 "
" 17.	"	"	1.00 p.m.....	60 "
" 17.	"	Jam begins to move down the island $\frac{1}{4}$ of mile.....	6.00 p.m.....	42 "
" 18.	"	"	6.00 a.m.....	32 "
" 18.	"	"	1.00 p.m.....	62 "
" 18.	"	Hazy in forenoon ..	6.00 p.m.	50 "
" 19.	"	River rose 5 ft.....	7.00 a.m.....	46 "
" 19.	"	No frost last night ..	1.00 p.m.	58 "
" 19.	"	"	6.00 p.m.....	45 "
" 20.	"	Great quantity of ice passes to-day.....	7.00 a.m.	32 "
" 20.	"	"	1.00 p.m....	63 "
" 20.	"	Flock of geese passed at 7.30 p.m.	6.00 p.m.	54 "
" 21.	"	Light showers at 9 p.m. last night; no frost.....	7.00 a.m.....	46 "
" 21.	"	"	1.00 p.m.....	65 "
" 21.	"	"	6.00 p.m.....	52 "
" 22.	"	Very little ice floating down the river, warm.....	7.00 a.m.....	52 "
" 22.	"	"	1.30 p.m.....	72 "
" 22.	"	"	6.00 p.m.....	56 "
" 23.	"	Hazy in the morning; light rain at 4 p.m.	7.00 a.m.....	33 "
" 23.	"	Frost last night.....	1.00 p.m.....	66 "
" 23.	"	Saw ducks in river..	6.00 p.m.....	45 "
" 24.	"	Leaves are showing from some trees on plateau.....	7.00 a.m.....	32 "
" 24.	"	"	1.00 p.m.....	66 "
" 24.	"	"	6.00 p.m.....	50 "
" 25.	"	White frost during night.....	7.00 a.m.....	31 "
" 25.	"	"	1.00 p.m.....	68 "
" 25.	"	"	6.00 p.m....	56 "
" 26.	"	No frost last night ..	7.00 a.m.....	34 "
" 26.	"	"	1.00 p.m.....	70 "
" 26.	"	"	6.00 p.m.....	48 "
" 27.	"	Hazy in the morning; warm afternoon...	7.00 a.m.....	44 "
" 27.	"	"	1.00 p.m.....	70 "
" 27.	"	Swam all the horses across the Peace river.	6.00 p.m.....	46 "
" 28.	"	"	7.00 a.m.....	45 "
" 28.	"	Hazy in forenoon ..	1.00 p.m.....	68 "
" 28.	"	No more ice on shores.	6.00 p.m.....	48 "
" 29.	"	Strong west wind all day; warm and fine.....	7.00 a.m.....	42 "
" 29.	"	"	1.00 p.m.....	70 "
" 29.	"	"	6.00 p.m.....	50 "

6-7 EDWARD VII., A. 1907

SCHEDULE showing Temperatures between May 1 and December 31, 1905, and January 1 and July 15, 1906.—J. A. BELLEAU, D.L.S., Observer.—Continued.

1906.	Place of Observation.	Weather.	Time.	Thermometer Readings.
Apr. 30.	Preparing to start to explore towards middle branch of Pine river		7.00 a.m....	45 above zero.
" 30.	Fort St. John, B.C., Headquarters..		1.00 p.m....	68 "
" 30.	" "		6.00 p.m....	44 "
May 1.	" "	Rain part of night and forenoon....	7.00 a.m. ...	43 "
" 1.	" "		1.00 p.m. .	60 "
" 1.	" "		6.00 p.m. ...	46 "
" 2.	On Plateau south of St. John		6.30 a.m....	44 "
" 2.	" "		6.00 p.m....	40 "
" 3.	" "	Hard frost last night, ice on pails; light shower at 10 a.m..	6.00 a.m....	30 "
" 3.	" "		6.00 p.m....	40 "
" 4.	" "	Hard frost last night; hail during part of day	6.00 a.m....	30 "
" 4.	On Major Creek		6.00 p.m....	35 "
" 5.	"	Clear and cold; snow during night....	6.00 a.m....	28 "
" 5.	"	Cloudy and cold ...	6.00 p.m. ..	30 "
" 6.	"	Hail fell at intervals.	6.00 a.m....	30 "
" 6.	"		6.00 p.m....	29 "
" 7.	"	Heavy frost last night; ½ inch ice.....	5.00 a.m. ...	25 "
" 7.	In valley near Luck lake.		7.00 a.m....	45 "
" 7.	"		6.00 a.m....	50 "
" 8.	"		7.00 p.m....	43 "
" 8.	"		1.00 p.m....	47 "
" 8.	"		6.00 p.m....	54 "
" 9.	In valley near Pine river.		7.00 a.m....	44 "
" 9.	In valley, mouth of middle branch Pine river.		1.00 p.m....	60 "
" 9.	" "		8.00 p.m....	52 "
" 10.	" "		7.00 p.m. ...	56 "
" 10.	" "		1.00 p.m....	68 "
" 10.	" "		6.00 p.m. ...	58 "
" 11.	" "		7.00 a.m....	34 "
" 11.	On Plateau 8 miles above Forks.....		1.00 p.m....	75 "
" 11.	" "		7.00 p.m....	50 "
" 12.	Middle branch of Pine.....	Frost during night..	6.00 a.m....	36 "
" 12.	"		1.00 p.m....	60 "
" 12.	" camp 9.....		8.00 p.m....	56 "
" 13.	On middle branch of Pine river.		7.00 a.m....	42 "
" 13.	" " "		1.00 p.m....	78 "
" 13.	" " "		6.00 p.m....	60 "
" 14.	" " "		7.00 a.m....	58 "
" 14.	" " "	Heavy shower in the afternoon.....	1.00 p.m....	62 "
" 14.	" " " 3 miles down the Forks..		7.00 p.m....	50 "
" 15.	" " "	Rain all night and all day.	7.00 a.m....	43 "
" 15.	" " "	N.E. wind.....	1.00 p.m....	44 "
" 15.	" " "		6.00 p.m....	40 "
" 16.	" " "	Rain all night and part of the day....	8.00 a.m....	46 "
" 16.	" " "	N.E. wind..	1.00 p.m....	50 "
" 16.	" " "		6.00 p.m....	42 "
" 17.	" " "	Rain steadily since last night and part of the day... ..	7.00 a.m....	45 "
" 17.	" " "		1.00 p.m....	48 "
" 17.	" " "		6.00 p.m....	44 "
" 18.	" " "		7.00 a.m....	34 "

SCHEDULE showing Temperatures between May 1 and December 31, 1905, and January 1 and July 15, 1906.—J. A. BELLEAU, D.L.S., Observer.—*Continued.*

1906.	Place of Observation.	Weather.	Time.	Thermometer Readings.
May 18.	On middle branch of Pine river.	Cloudy, with east wind.	1.00 p.m.	58 above zero.
" 18.	" " "	"	6.00 p.m.	42 "
" 19.	" " "	West wind, no frost.	7.00 a.m.	44 "
" 19.	" " "	Heavy showers in the afternoon.	1.00 p.m.	65 "
" 19.	" " "	"	6.00 p.m.	53 "
" 20.	" " "	"	7.00 a.m.	42 "
" 20.	" " " camp 9.	"	6.00 p.m.	45 "
" 21.	" " "	Strong N. E. wind, rain all night & day.	7.00 a.m.	50 "
" 21.	" " "	"	12.00 a.m.	58 "
" 21.	" " "	"	6.00 p.m.	56 "
" 22.	" " "	"	7.00 a.m.	48 "
" 22.	On tributary of middle branch of Pine river.	"	1.00 p.m.	70 "
" 22.	" " "	"	6.00 p.m.	56 "
" 23.	" " "	White frost this morning.	6.00 a.m.	40 "
" 23.	West end of Rocky Mountain lake.	Heavy rain in the afternoon.	6.00 p.m.	50 "
" 24.	" " "	Rain all day.	7.00 a.m.	44 "
" 24.	" " "	East wind	1.00 p.m.	56 "
" 24.	" " "	"	6.00 p.m.	42 "
" 25.	" " "	Rain all day.	7.00 a.m.	42 "
" 25.	" " "	"	6.00 p.m.	39 "
" 26.	" " "	N.E. wind, showery all day.	11.00 a.m.	46 "
" 26.	" " "	"	6.00 p.m.	40 "
" 27.	" " "	"	7.00 a.m.	44 "
" 27.	East end of " "	"	6.00 p.m.	50 "
" 28.	" " "	"	7.00 a.m.	46 "
" 28.	On Rocky Mountain creek.	"	6.00 p.m.	62 "
" 29.	" " "	"	6.30 a.m.	51 "
" 29.	" " east branch of Pine river	"	1.00 p.m.	74 "
" 29.	" " " "	"	6.00 p.m.	62 "
" 30.	East branch of Pine river	Showers in forenoon.	6.00 a.m.	54 "
" 30.	" " "	"	11.00 a.m.	75 "
" 30.	" " "	"	5.00 p.m.	68 "
" 31.	" " lower crossing.	"	7.00 a.m.	56 "
" 31.	" " "	"	1.00 p.m.	72 "
" 31.	" " "	"	6.00 p.m.	54 "
June 1.	" " "	"	7.30 a.m.	56 "
" 1.	" " "	"	1.00 p.m.	70 "
" 1.	" " "	"	6.00 p.m.	55 "
" 2.	" " "	"	7.00 a.m.	54 "
" 2.	On Coal Brook.	"	2.00 p.m.	74 "
" 2.	" " "	"	6.00 p.m.	68 "
" 3.	" " "	"	6.00 a.m.	56 "
" 3.	" " "	"	2.00 p.m.	76 "
" 3.	" " "	"	6.00 p.m.	58 "
" 4.	" " "	Showers during night	7.00 a.m.	56 "
" 4.	North branch of Coal Brook	"	12.30 p.m.	60 "
" 4.	" " "	"	6.00 p.m.	52 "
" 5.	On Plateau, Graves creek.	"	7.00 a.m.	54 "
" 5.	" " "	"	1.00 p.m.	70 "
" 5.	" " "	"	8.00 p.m.	52 "
" 6.	" " "	Frost during night	7.00 a.m.	56 "
" 6.	" Kis-ka-pis-kow river.	"	6.00 p.m.	50 "
" 7.	" " "	"	6.30 a.m.	54 "
" 7.	" Dawson's Brook.	"	7.00 p.m.	52 "
" 8.	" " Pouce Coupe Prairie.	Heavy showers at 7.00 p.m.	6.30 a.m.	51 "
" 8.	" " "	"	12.30 p.m.	66 "
" 8.	" " "	"	7.00 p.m.	48 "
" 9.	" " "	Rainy during night and in the afternoon	7.00 a.m.	50 "

6-7 EDWARD VII., A. 1907

SCHEDULE showing Temperatures between May 1 and December 31, 1905, and January 1 and July 15, 1906.—J. A. BELLEAU, D.L.S., Observer.—*Continued.*

1906.	Place of Observation.	Weather.	Time.	Thermometer Readings.
				°
June 9.	On Plateau, Pouce Coupe Prairie.....	Strong N.E. wind & thunder storm in the afternoon.	6.00 p.m....	54 above zero.
" 10.	" Pouce Coupe Prairie.....	.....	6.00 a.m....	55 "
" 10.	" " .....	.....	1.00 p.m....	68 "
" 10.	" " .....	.....	7.00 p.m....	52 "
" 11.	" "	Light showers in the afternoon.....	.....	.....
" 11.	" " .....	.....	.....	.....
" 12.	" "	Rain part of the night with thunder.....	6.00 a.m....	52 "
" 12.	" " .....	.....	1.00 p.m....	60 "
" 13.	" " .....	.....	6.30 a.m....	50 "
" 13.	In valley, Tributary of Kis-ka-pis-kow river..	.....	3.00 p.m....	64 "
" 14.	Kis-ka-pis-kow river flat.....	Showers at noon.....	7.00 a.m....	51 "
" 14.	" " .....	.....	2.00 p.m....	65 "
" 15.	" "	Frost last night.....	3.30 a.m....	34 "
" 15.	" " .....	.....	6.30 a.m....	51 "
" 15.	Creek flowing into Kis-ka-pis-kow river.....	.....	2.00 p.m....	75 "
" 15.	" " near Divide..	.....	7.00 p.m....	54 "
" 16.	" Peace river.....	Showers at noon.....	6.30 a.m....	48 "
" 16.	" " .....	.....	3.00 p.m....	60 "
" 17.	Belleau Brook "	Light showers in the afternoon.....	7.00 a.m....	56 "
" 17.	South Pine river flat .....	.....	1.30 p.m....	76 "
" 17.	" " .....	.....	6.00 p.m....	54 "
" 18.	Plateau South of Peace river.....	Light shower in forenoon. Fine weather in afternoon .....	.....	.....
" 19.	Headquarters, Fort St. John, B.C.....	Fine and warm.....	6.00 a.m....	54 "
" 19.	" " .....	.....	1.00 p.m....	75 "
" 19.	" " .....	.....	6.00 p.m....	56 "
" 20.	" " .....	.....	6.00 a.m....	50 "
" 20.	" " .....	.....	2.00 p.m....	70 "
" 20.	" " .....	.....	6.00 p.m....	52 "
" 21.	" "	N.W. wind. Rain all forenoon.....	6.00 a.m....	48 "
" 21.	" " .....	.....	1.00 p.m....	62 "
" 21.	" " .....	.....	7.00 p.m....	50 "
" 22.	" " .....	.....	7.00 a.m....	55 "
" 22.	" " .....	.....	2.00 p.m....	76 "
" 22.	" " .....	.....	7.00 p.m....	58 "
" 23.	" " .....	.....	7.00 a.m....	60 "
" 23.	" " .....	.....	2.00 p.m....	78 "
" 23.	" " .....	.....	6.00 p.m....	55 "
" 24.	" " .....	.....	6.00 a.m....	56 "
" 24.	" " .....	.....	2.00 p.m....	84 "
" 24.	" " .....	.....	7.00 p.m....	55 "
" 25.	" " .....	.....	7.00 a.m....	56 "
" 25.	Flat on north side of Peace river.....	.....	2.00 p.m....	82 "
" 25.	" " .....	.....	7.00 p.m....	58 "
" 26.	" " .....	.....	6.00 a.m....	54 "
" 26.	Plateau " .....	.....	1.00 p.m....	84 "
" 26.	" " Near N. Pine river.....	.....	6.00 p.m....	56 "
" 27.	" "	Light shower in the afternoon.....	6.00 a.m....	52 "
" 27.	" " .....	.....	2.00 p.m....	65 "
" 27.	" " .....	.....	6.00 p.m....	54 "
" 28.	" " .....	.....	6.40 a.m....	54 "
" 28.	Left shore of the N. Pine river.....	.....	2.00 p.m....	62 "
" 29.	On Plateau east of N. Pine river.....	Cool rain all day.....	7.00 a.m....	54 "
" 29.	" "	N.W. wind	7.00 p.m....	56 "
" 30.	" "	Rain part of the night.....	6.30 a.m....	56 "
" 30.	Creek flowing in Pine river.....	S.W. wind; cool....	2.00 p.m....	65 "
" 30.	" " .....	.....	7.00 p.m....	55 "
July 1.	" "	Fine and very warm..	6.00 a.m....	60 "

SESSIONAL PAPER No. 178

SCHEDULE showing Temperatures between May 1 and December 31, 1905, and January 1 and July 15, 1906.—J. A. BELLEAU, D.L.S., Observer.—Continued.

1906.	Place of Observation.	Weather.	Time.	Thermometer Readings.
				°
July 1.	Creek flowing in Pine river .....	.....	1.00 p.m....	82 above zero.
" 1.	" " " .....	.....	6 00 p.m....	65 "
" 2.	" " "	Fine and very warm.	6.00 a.m....	68 "
" 2.	" " " .....	.....	3.00 p.m....	86 "
" 3.	" " " .....	.....	7.00 a.m....	62 "
" 3.	" " " Bch.of N.Pine river.	.....	2.00 p.m. .	88 "
" 3.	" " " " "	.....	7 00 p.m....	80 "
" 4.	" " " " "	Thunderstorm in the afternoon.....	7.00 a.m. .	70 "
" 4.	" " " " "	Warm and sultry...	2.00 p.m. .	82 "
" 5.	On Plateau E. of N. Pine River.....	Thunderst'rm during night, cool morning	7.00 a.m....	60 "
" 5.	" " " .....	.....	3.00 p.m. .	85 "
" 5.	" " " .....	.....	7.00 p.m....	76 "
" 6.	" " "	Heavy dew.....	7.00 a.m....	58 "
" 6.	" " " .....	.....	2.00 p.m....	82 "
" 7.	" " W. " .....	.....	7.00 a.m....	68 "
" 7.	Fish Creek.....	Very warm day.....	5.00 p.m. .	88 "
" 8.	" " " .....	.....	7.00 a.m....	70 "
" 8.	" " 6 miles W. of St. John.....	.....	2.00 p.m....	92 "
" 8.	" " "	Reported to have been 102° at St. John.	6.00 p.m....	80 "
" 9.	" " "	Cool day.....	6.00 a.m....	58 "
" 9.	East end of Charlie lake.....	Strong west wind...	2.00 p.m....	82 "
" 10.	" " " .....	.....	7.00 a.m....	58 "
" 10.	West " "	Strong S.W. wind...	2.00 p.m....	78 "
" 11.	" " " .....	.....	6.30 a.m....	60 "
" 11.	" " "	Very warm in afternoon .	2.00 p.m..	75 "
" 12.	" " " .....	.....	6.30 a.m....	58 "
" 12.	Left bank of Peace river.....	.....	2.00 p.m....	88 "
" 13.	" " " Mouth of Cache Cr...	.....	7.00 a.m....	55 "
" 13.	Branch of Cache creek. ....	.....	2.00 p.m....	82 "
" 14.	" " " " " .....	.....	7.00 a.m....	58 "
" 14.	Left bank of Peace river, Mouth of Cache Creek.....	.....	2.30 p.m....	80 "
14.	" " " " " .....	.....	7.00 p.m....	62 "
" 15.	" " " " " .....	.....	7.00 a.m....	70 "
" 15.	Fish Creek	Fine day and very warm.....	2.00 p.m....	92 "
" 15.	" " " .....	.....	6.30 p.m....	80 "

OBSERVATIONS TAKEN AT DUNVEGAN, FEBRUARY 2, 1905.

Station.	Depth of Water and Ice.
0	Ice
1 plus 50.....	Ice
2	6 feet Ice and water
3	2 feet Ice
4	3 feet Ice, 2½ feet water
4 plus 50.....	5 feet water
6	10 feet water
9	15 feet 6 inches water
12	16 feet water
13 plus 70.....	Ice
1,370 feet total width of river.	

Station numbers read from left to right, and are 100 feet in length.

6-7 EDWARD VII., A. 1907

PEACE RIVER CROSSING, January 18, 1905.

Average depth of snow on level, 11" on surface of ice.
Average width of river on surface of ice, 1,611'.

			Depth of Water.
From Station	0	.....	0
"	"	1	.....
"	"	2	.....
"	"	3	..... 9
"	"	4	.....
"	"	5	.....
"	"	6	..... 20' 6"
"	"	7	.....
"	"	8	.....
"	"	9	..... 19' 4"
"	"	10	.....
"	"	11	.....
"	"	12	..... 8' 6"
"	"	13	.....
"	"	14	.....
"	"	15	.....
"	"	16 plus 11	..... Ice
Average thickness of ice			..... 16" to 18"
Width of valley from top of hills on each side			..... 10,042'
Depth of valley			..... 800'
Width of valley from top of hills on left side to water's edge			..... 4,212'
Width of valley from top of hills on right side to water's edge			..... 4,219'
Width of stream			..... 1,611'

Station numbers read from right to left and are 100 feet in length.
The measurements were made at lowest possible stage of water.

RECORDS OBTAINED FROM POLICE JOURNALS, .1903 and 1904, TAKEN AT
PEACE RIVER CROSSING.

1903.

- Nov. 22—River froze up.
- Nov. 27—Ice broke up again.
- Dec. 15—River froze over again and remained frozen over until April 12, 1904.

1904.

- Dec. 1—River froze up.
- Dec. 3—Teams crossed on ice.
- Dec. 9—River broke up again.
- Dec. 21—River froze up again for the winter.

